

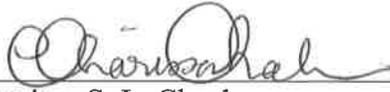


APPROVAL SHEET

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## ABSTRACT

Title of Document: A MULTI-METHOD EXPLORATION OF  
KOREAN IMMIGRANT PARENTING AND  
CHILDREN'S SOCIO-EMOTIONAL AND  
BEHAVIORAL OUTCOMES IN THE U.S.

You Jung Seo, Ph.D., 2020

Directed By: Professor Charissa S. L. Cheah, Department of  
Psychology

This dissertation project aimed to clarify pathways toward young Korean immigrant children's socioemotional and behavioral adjustment by exploring associations among predictors of parenting, parenting behaviors and practices, and child adjustment outcomes using a multi-method approach across three separate empirical papers. The first paper with 158 Korean immigrant mothers examined the contributions of social support and found that greater perceived instrumental support (but not emotional support) received from kin predicted better maternal psychological well-being 6 months later, which in turn predicted less reported authoritarian parenting style 6 months later.

The second paper examined associations among 120 Korean immigrant mothers' observed use of praise and encouragement, their acculturation, their children's socioemotional and behavioral difficulties and the moderating role of child gender and age. Mothers used *process* praise most frequently. Higher levels of American acculturation were associated with more use of *person* and *other* praise. Higher levels of maintenance of their heritage Korean culture were associated with mothers' greater use of *person* praise among younger children, but less use of *person* praise among older children. Mothers with higher levels of American acculturation with older children only used more encouragement. Maternal encouragement was associated with fewer child difficulties.

The third paper examined the transactional associations among maternal warmth, child temperamental inhibitory control, child externalizing behaviors, and maternal American acculturation in Korean immigrant families with young children across three time points, each 6-months apart. Korean immigrant mothers and their preschool-aged children in the U.S. participated ( $n = 199$  at Wave 1,  $n = 138$  at Wave 2, and  $n = 105$  at Wave 3). Moderate to strong stabilities within each construct across time and within-time covariations among the constructs were revealed. Transactional relations between parent and child were not found. However, Wave 2 maternal warmth predicted increases in Wave 3 child temperamental inhibitory control. Wave 1 maternal American acculturation significantly influenced their level of Wave 2 maternal warmth. Overall, this dissertation project extended our current understanding of contributors to, and outcomes associated with, Korean immigrant parenting and informed the development of culturally sensitive parenting programs to facilitate Korean immigrant children's positive adjustment in the U.S.

A MULTI-METHOD EXPLORATION OF KOREAN IMMIGRANT PARENTING AND  
CHILDREN'S SOCIO-EMOTIONAL AND BEHAVIORAL OUTCOMES IN THE U.S.

By

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## **Chapter 1: Overall Background**

Asian Americans comprise the fastest growing ethnic minority group in the U.S. and has been projected to be the largest group by 2065 (Cohn, 2015). Korean Americans are the fifth largest segment of the Asian American population with a population of over 1 million (U.S. Census Bureau, 2016). Despite being portrayed as “model minorities,” Korean American adolescents tend to exhibit significantly more internalizing symptoms (e.g., depression and anxiety) than Chinese and Japanese American adolescents (Yeh, 2003) and experience a high frequency of acculturation conflicts in their parent-adolescent relationships (Kim, 2013; Kim & Cain, 2008; Kim, Chen, Kools, & Weiss, 2016). Moreover, Korean American adolescents were found to experience high levels of social, mental health, and attention problems (Kim et al., 2016). However, little is known about mechanisms underlying parenting and young Korean American children’s socioemotional and behavioral developmental pathways, despite the benefits of understanding or intervening in potentially preventing maladaptive developmental processes during the early years (McCabe & Altamura, 2011).

Parents play an important role in children’s socioemotional and behavioral development (e.g., Bornstein & Putnick, 2012; Bornstein, Putnick, & Suwalsky, 2018). Immigrant children are particularly vulnerable to maladjustment because their socialization occurs within two major contexts (home and school), which can have different values and norms (Kim, Han, & McCubbin, 2007; Kim & Hong, 2007). When parents possess parenting beliefs that may clash with those of the cultural norms of the mainstream society, their parenting and parent-child relationship may be challenged, which in turn could lead to socioemotional and behavioral problems in children (Bornstein, 2012; Rubin & Burgess, 2002). A few studies have examined Korean immigrant mothers’ parenting and its relation to their children’s socioemotional and

behavioral adjustment (e.g., Farver & Lee-Shin, 2000; Kim, Guo, Koh, & Cain, 2010).

However, much of the existing literature on parenting and children's adjustment in Korean immigrant samples has focused almost exclusively on direct associations between parenting and children's adjustment outcomes (e.g., Kim et al., 2007; Kim et al, 2010), with little consideration of mechanisms that may contribute to young Korean immigrant children's positive adjustment in the U.S.

### **Conceptualization of Parenting**

Parenting involves both parenting styles and specific parenting practices. Parenting styles are defined as characteristics of parents' childrearing patterns and techniques that are stable over time and constitute the emotional context for the expression of parenting behaviors (Coplan, Hastings, Lagace-Seguin, & Moulton, 2002; Darling & Steinberg, 1993). Parenting styles are usually described as typologies characterized by the parents' level of expectations for and sensitivity to their child's behavior (Baumrind, 1971). Diana Baumrind (1971) first conceptualized three types of parenting styles (authoritative parenting, authoritarian parenting, and permissive parenting) along two dimensions of parenting: demandingness (control) and responsiveness (warmth). Demandingness refers to the standards and demands set by parents for their children including supervision, discipline, and expectations for appropriate behavior (Baumrind, 1991). Responsiveness refers to the extent to which parents foster individuality, self-regulation, and self-assertion by being supportive, sensitive, and attuned to children's needs (Baumrind, 1991).

The authoritative parenting style is characterized by high levels of both demandingness and responsiveness (Power, 2013). Parents who are authoritative set clear standards and reasonable limits on children's behavior with the use of consistent positive discipline strategies,

including reasoning and induction, while simultaneously encouraging children's autonomy (Baumrind, 1996; Maccoby & Martin, 1983; Pong, Johnston, & Chen, 2010). The authoritarian style is characterized by high demandingness and low responsiveness. In contrast, the authoritarian parents exert high control over children's autonomy and use harsh disciplinary strategies such as physical punishment, verbal hostility, and nonreasoning to control their children's behavior; these parents are rarely accepting of or warm towards their children. The permissive parenting is characterized by low demandingness and high responsiveness. Permissive parents are very accepting of their children but provide few guidelines and rules and make few demands for mature behaviors in children. Maccoby and Martin (1983) later added a fourth parenting style, the uninvolved style. Uninvolved parents are low on both demandingness and responsiveness and are unengaged in their children's activities and child rearing tasks.

There is consistent evidence that authoritative parenting style is related to a variety of positive child outcomes, including high self-esteem, positive emotional adjustment, low aggression, anxiety, and depression (e.g., Jackson, Pratt, Hunsberger, & Pancer, 2005; Laible & Carlo, 2004; McKinnel, Donnelly, & Renk, 2008; Park, Kim, & Park, 2016). In contrast, it has been shown that authoritarian, permissive, and uninvolved parenting styles are related to higher parent-child conflict, and negative behaviors and poor mental health for children (Baumrind, 1991). However, these findings mainly derived from studies conducted in Western cultures. Therefore, researchers continue to debate whether and to what degree these relations between parenting styles and child outcomes can be generalized and applied to families in East Asian cultures (Lee, Zhou, Eisenberg, & Wang, 2001).

Several cross-cultural comparisons have examined the mean levels of authoritative and authoritarian parenting styles (the two most commonly employed parenting styles) and their

effects on child developmental outcomes (e.g., Chan & Koo, 2011; Steinberg, Dornbusch, & Brown, 1992; Vinden, 2001). Past research has shown that mothers in different cultures differ in their mean levels of authoritative and authoritarian parenting. For instance, Chinese parents were found to score higher on authoritarian parenting and lower on authoritative parenting than European American parents (e.g., Steinberg et al., 1992; Wu et al., 2002). Moreover, in a sample of mothers of preschool-aged children, Korean mothers scored higher than Anglo mothers on the authoritarian factor, which focused on the child's conformity to the parent's strict obedience. In contrast, Anglo mothers scored higher than Korean mothers on authoritative parenting in the area of encouraging their children's autonomy (Vinden, 2001). Cultural differences in mean levels of authoritative and authoritarian parenting may exist because of particular cultural demands, which can impact how much parents value the promotion of children's autonomy, how parents care for children, and the specific practices thought to be most effective (Bornstein, 2013; Bornstein, Cote, & Venuti, 2001; Chao, 1994; Wu et al., 2002).

Despite cultural variations in the mean levels of authoritative and authoritarian parenting, these two parenting styles serve at least some similar cross-cultural adaptive function for the social-emotional and behavioral development of young children. Within the framework of authoritarian and authoritative parenting styles, research has revealed that the authoritative parenting style is associated with positive socioemotional and behavioral adjustment in European American, Chinese American, and Korean children (e.g., Chen, Dong, & Zhou, 1997; Chen et al., 2000; Shin & Kim, 2008). In contrast, the authoritarian parenting style is associated with negative adjustment for European American, Korean immigrant children in Australia, and Chinese children including emotion dysregulation, behavioral deviance, and internalizing problems (Chen et al., 2000; Lee, Keown, & Brown, 2018; Lee et al., 2012; Nelson, Hart, Yang,

Olsen, & Jin, 2006). Therefore, although researchers have questioned the use of a typological approach, the parenting styles of Korean immigrant parents in the U.S. deserves attention because parenting styles closely reflect the pervasive interactional emotional climate between parents and children over a broad range of contexts and situations (Coplan et al., 2002; Darling & Steinberg, 1993; Mize & Pettite, 1997), and have been found to be meaningful for children's development.

In addition to understanding parenting using a typological approach, another body of research concerning childrearing focuses on parenting practices. Parenting practices are parenting behaviors that are specific to particular situations and domains (Anderson, 2011; Darling & Steinberg, 1993). In general, negative parenting practices (e.g., inconsistent discipline, neglect, and hostility) have been found to be associated with children's deviant behaviors (e.g., delinquency, and antisocial problems) and socio-emotional problems (e.g., anxiety, depression, and internalizing symptoms) (e.g., Bayer, Sanson, & Hemphill, 2006; Nelson et al., 2006). In contrast, responsive and warm parenting practices are associated with children's positive social behavior and psychological functioning (e.g., Chen et al., 1997; Chen, Wu, Chen, Wang, & Cen, 2001).

However, the form and function of parenting practices may vary by cultural contexts because the meaning of different behaviors can be determined by the cultural context (Bornstein, 2009). Therefore, there is a need to examine specificity in parenting among Korean immigrant parents in the U.S. The study of parenting specificity examines how particular parenting dimensions, such as maternal warmth, relate to particular child outcomes (e.g., internalizing vs. externalizing problems; McKee, Colletti, Rakow, Jones, & Forehand, 2010). Consistent with an ecological perspective (Bronfenbrenner, 1979), O'Conner (2002) has emphasized that parenting

is naturally embedded in a large number of layered contexts (e.g., families, social systems, and cultures). Therefore, parenting is most effectively studied when the effects of specific contextual variables are considered (Mckee et al., 2010); parental acculturation is one such proximal context for immigrant families. Moreover, the specificity principle states that the specific experiences that specific parents provide specific children at specific time exert effects in specific ways over specific aspects of child development (Bornstein, 2002, 2006, 2009). Therefore, examining specific parenting behaviors in relation to specific child outcomes in the context of maternal acculturation over time can have important implications for young Korean immigrant children's adjustment in the U.S.

**Immigrant parenting.** Parents' cultural belief systems play a powerful role in shaping their parenting behaviors that fit the norms of the cultural context in which they raise children (Harkness & Super, 2002; Kim, Im, Nahm, & Hong, 2012). In more collectivistic cultures, parents socialize children to be interdependent, passive, obedient, and self-disciplined whereas parents in more individualistic cultures socialize their children to be autonomous, independent, and self-reliant (e.g., Holmbeck, Paikoff, & Brooks-Gunn, 1995; Kim, Kim, & Rue, 1997). For many immigrants, their parenting behaviors and practices may be reconstructed in the context of immigration where they need to find the balance between the cultural values of their host and native countries (Komolova & Lipnitsky, 2018). For example, many Korean immigrant families simultaneously experience both their heritage collectivistic Korean culture in the home and co-ethnic community and individualistic mainstream American culture (e.g., Kim, 2011). Studies have found that Korean American parents are socialized in Korean collectivistic cultural values (Kim, 2008) and want their children to maintain at least some aspects of their traditional Korean values and customs (Kim & Wolpin, 2008). As a result, Korean immigrant parents socialize

their children to be more passive and obedient at home (Kim et al., 2012). However, Korean immigrant parents recognize the need for their children to socialize within the mainstream American culture at school and in other non-co-ethnic social spheres (Kim, 2011). For instance, Kim and Wolpin (2008) found that the majority of Korean immigrant parents think that it is important for their children to learn American values and customs. Therefore, as Korean immigrant parents are increasingly exposed to mainstream culture, they reconstruct their parenting through changing some of their parenting beliefs and practices that they had developed in Korea and adopt some aspects on European American parenting (Kim & Hong, 2007). Such reconstructed parenting has been found to be associated with greater social competence for Korean immigrant children (Kim et al., 2007). However, little is known about how maternal acculturation, parenting behaviors and practices, and their children's adjustment outcomes are longitudinally associated.

This dissertation project examined Korean immigrant mothers' parenting style and specific parenting practices in relation to maternal acculturation across three studies, which provides a more comprehensive understanding of Korean immigrant parenting. Although research has provided valuable insights about parenting in different cultural contexts, not much research has focused on parenting among Korean immigrants in the U.S., particularly among younger children. Therefore, this dissertation project aimed to clarify pathways toward young Korean immigrant children's socioemotional and behavioral adjustment by exploring associations among predictors of parenting (e.g., social-contextual factors, parents' psychological resources, and children's characteristics), parenting behaviors and practices, and child adjustment outcomes using a multi-method approach (i.e., parent-reports, behavioral observations, and teacher-reports) across three separate empirical papers. Briefly, the first paper

examined the mediating role of Korean immigrant mothers' psychological well-being in the associations between mothers' emotional versus instrumental support received from their kin, and their authoritarian parenting style with preschool-aged children. The second paper examined associations among Korean immigrant mothers' observed use of praise and encouragement while playing with their children, their acculturation, their children's socioemotional and behavioral difficulties and the moderating role of child gender and age. Finally, in the third paper, we examined the transactional associations among maternal warmth, child temperamental inhibitory control, child externalizing behaviors, and maternal acculturation in Korean immigrant families with young children across three time points.

## Chapter 2: Paper One

### *The Mediating Role of Korean Immigrant Mother's Psychological Well-Being in the Associations between Social Support and Authoritarian Parenting style*

The first published paper of the dissertation project (see Attachment 1) aimed to explore mechanisms through which contextual (social support) and personal (psychological well-being) factors may reduce negative parenting in Korean immigrant mothers of young children (Seo et al., 2018). As effective parenting is believed to be a crucial protective factor for immigrant children (Armistead, Forehand, Brody, & Maguen, 2002), an understanding of how parenting comes to be influenced by social support and psychological well-being within a sample of Korean immigrant mothers is critical to the development and delivery of possible prevention and intervention services.

One challenge of migration for many individuals involves the loss of social ties in their home country and the rebuilding of their social support system in the host country (García, Ramírez., & Jariego, 2002). Past research has suggested that a supportive social network may increase parental psychological well-being, which in turn decrease negative parenting among immigrant parents, as greater social support can help alleviate adversities that arise in the process of adapting to a new environment (Izzo, Weiss, Shanahan, & Rodriguez-Brown, 2000; Lee, Anderson, Horowitz, & August, 2009; Simons, Lorenz, Wu, & Conger, 1993). However, longitudinal examinations of the effects of social support on parental well-being and parenting are lacking. Moreover, cultural variations have been found to exist in the forms (e.g., emotional vs. instrumental) and sources (e.g., kin vs. friends) of social support available to individuals (Kim & McKenry 1998; MacPhee, Fritz, & Miller-Heyl, 1996; Turney & Kao 2009), which can have important implications for their parenting. For first-generation Korean immigrant in the

U.S., kinship support is proposed to be the most important resource for their settlement and adjustment (Kim & Hurh, 1993; Min, 1984). Therefore, the first paper examined the mediating role of Korean immigrant mothers' psychological well-being in the longitudinal associations between mothers' emotional versus instrumental support received from their kin, and their authoritarian parenting style with preschool-aged children.

One hundred fifty-eight first-generation Korean immigrant mothers with preschool-aged children residing in Maryland, U.S., participated in three assessment waves. Each assessment wave was 6 months apart. Mothers reported on the amount of perceived emotional and instrumental support they received from their kin in a semi-structured interview format, their behavioral acculturation towards the American culture, and their family demographic information at Wave 1, their psychological well-being at Wave 2, and their authoritarian parenting style at Wave 3.

The results revealed that higher levels of perceived instrumental support (but not emotional support) received from kin predicted higher levels of maternal psychological well-being 6 months later, which in turn predicted lower levels of reported authoritarian parenting style 6 months later. Kin-provided instrumental support may allow Korean immigrant mothers to develop a greater sense of environmental mastery and purpose in life. In turn, positive psychological functioning may build immigrant mothers' feelings of confidence in their parenting role (Costigan & Koryzma 2011; Farmer & Lee 2011). Mothers with more psychological resources were less likely to engage in coercive and punitive parenting practices that focus on obtaining child compliance 6 months later. The findings from Paper 1 of this dissertation project highlighted the importance of psychological well-being as a mechanism that explains how instrumental support can impact Korean immigrant mothers' parenting style, and

the importance of distinguishing between types of support. These findings can inform family support-based prevention and intervention programs by highlighting ways to enhance Korean immigrant mothers' psychological well-being. Moreover, services providing instrumental support (e.g., childcare assistance) for first-generation immigrant mothers, particularly those with smaller or less effective kin networks, appear important to implement.

### Chapter 3: Paper Two

#### *Korean Immigrant Mothers' Praise and Encouragement, Acculturation, and their Children's Socioemotional and Behavioral Difficulties*

The second published paper of the dissertation project (see Attachment 2) aimed to provide a deeper understanding of the parenting behaviors of Korean immigrant mothers in the United States using observational methods (Seo, Cheah, & Hart, 2017). Specifically, Paper 2 examined associations among these mothers' observed use of different types of praise and encouragement, their acculturation, their children's socioemotional and behavioral difficulties, and the moderating role of child gender and age. Maternal praise and encouragement of their children have been found to be associated with decreased levels of adjustment problems in their children (Cole & Rehm, 1986; Deković & Janssens, 1992). In addition, maternal praise and encouragement and their effects on children's developmental outcomes may vary by child gender and age (Gunderson et al., 2013; Leaper, Anderson, & Sanders, 1998).

However, the meaning, use and consequences of maternal praise and encouragement have been proposed to vary across cultural contexts (Jose & Bellamy, 2012; Wang, Wiley, & Chiu, 2008). Specifically, East Asian parents highly value humility and modesty and consider praise to be harmful in building children's character and success (Huang & Gove, 2012). Praise and encouragement are also perceived as potentially diminishing parents' authority in East Asian culture (Cheah & Li, 2010). Thus, Korean immigrant mothers' acculturation level may be associated with their use of different types of praise (*process, person, and other praise*) and encouragement toward their children.

Therefore, the second paper examined: (1) Korean immigrant mothers' rates of engagement in different types of praise and encouragement during mother-child interactions; (2)

the associations between mothers' praise and encouragement with their acculturation level and children's adjustment outcomes, and (3) the potential moderating roles of child gender and age in these associations.

One hundred and twenty first-generation Korean immigrant mothers and their 2- to 6-year-old children residing in Maryland participated in this study. Mothers' engagement in praise (*process*, *person*, and *other*) and encouragement were observed and coded during a 15-minute free-play task with their children. Mothers also reported on their levels of acculturation toward the mainstream American culture and maintenance of their heritage Korean culture. Moreover, teachers reported on children's socioemotional and behavioral difficulties in school.

The results revealed that mothers used *process* praise (praising children's success to their engagement and effort in tasks) most frequently, supporting previous research on Asian mothers' emphasis on learning beliefs (e.g., Hess & Azuma, 1991; Li, 2003). Higher levels of acculturation toward the American culture (American acculturation) were associated with more use of *person* (praising children's success to their fixed traits) and *other* praise (statements with clear positive valence, but without explicit reference to the child's process or traits). Mothers who participated more in the American culture may perceive *person* praise as a desirable means to increase self-confidence in their children within the new cultural context (Cheah, Leung, & Zhou, 2013). Moreover, these mothers may be more familiar and comfortable with using *other* praise, as different forms of *other* praise (e.g., "awesome" and "excellent") are more available in the English language than Korean language.

Korean immigrant mothers praised and encouraged girls and boys similarly, which may reflect decreasing gender inequality in contemporary Korean families (Chung & Gupta, 2007). Higher levels of maintenance of the heritage Korean culture were associated with greater use of

*person* praise among younger children, but less use of *person* praise among older children. This finding is consistent with the traditional notion of parental indulgence in and nurturance of young children within East Asian culture (Chao & Tseng, 2002; Kim et al., 1997). Moreover, Korean immigrant mothers with more traditional lifestyles may provide less person praise to older children to avoid undermining their effort and achievement (Pomerantz & Kempner, 2013). Mothers higher in American acculturation used more encouragement with older children only. Mothers who participated in the American culture may use more encouragement to support their older children's achievement rather than threaten their children's development of modesty (Cameron, Lau, Fu, & Lee, 2012; Dinkmeyer & Dreikurs, 2000). Finally, maternal encouragement was associated with fewer child difficulties. Encouraging and supportive parenting may promote children's emotional understanding and regulation so that they are able to manage their own distress in other social contexts (Spinrad et al., 1999).

The second paper of the dissertation project examined actual rather than perceived parenting behaviors using observational data (Bornstein & Cheah, 2017; Gardner, 2000). These findings advanced our understanding of specific parenting behaviors and their relations with young Korean immigrant children's socioemotional and behavioral adjustment in the school setting. Moreover, the significant and unique roles of mothers' behavioral participation in the mainstream versus heritage culture and the developmental stage of the child were revealed. Last, the use of multi-method (parent-report, observation, and teacher-report) addressed the issue of shared report variance (Burk & Laursen, 2010).

## **Chapter 4: Paper Three**

### *Transactional Relations among Child Temperament, Parenting, and Acculturation in Predicting Korean American Children's Externalizing Problems*

#### **Background**

Child development does not occur along an absolute trajectory but rather through reciprocal transactions between child characteristics and the context within which one develops (Hinshaw, 2008). Children's early temperamental characteristics have been found to influence their developmental pathways and predict behavioral and emotional problems later in childhood or adolescence (Abulizi, Pryor, Michel, Melchior, & van der Waerden, 2017; Nigg, 2006). Importantly, child temperament and parenting mutually influence one another over time and jointly contribute to child adjustment during the preschool period (Klein et al., 2016; Sameroff, 2009). However, although bidirectional parent-child relationships have consistently been found to shape child behaviors over time within Western samples (Kiff, Lengua, & Zalewski, 2011), these processes are much less explored, particularly in immigrant children in the United States while considering contextual factors such as maternal acculturation.

Immigrant mothers' acculturation has been found to have important implications on their parenting and children's adjustment (e.g., Liu, Lau, Chen, Dinh, & Kim, 2008; Seo et al., 2017; Yu, Cheah, Hart, & Yang, 2018). However, little is known about bidirectional mechanisms involving individual (child temperamental inhibitory control), parental (parenting warmth), and contextual (maternal acculturation) factors that contribute over time to young Korean immigrant children's positive adjustment in the United States. A greater understanding of these mechanisms can inform culturally-sensitive attempts to intervene in potentially maladaptive developmental processes during the early years (McCabe & Altamura, 2011). Specifically, we

focused on longitudinal associations among child temperamental inhibitory control, maternal warmth, maternal acculturation, and child externalizing behaviors in a sample of Korean immigrant families.

### **Adjustment Problems in Early Childhood**

Socio-emotional and behavioral problems can begin in early childhood (Egger & Angold, 2006). For instance, research has found that externalizing forms of behaviors (e.g., aggression, hyperactive, and disruptive behaviors) are present as early as age 2 years (e.g., Cummings, Iannotti, & Zahn-Waxler, 1989; Hay, Castle, & Davies, 2000). Moreover, physical aggression in kindergarten is found to reflect the continuation of a behavior pattern that began in the preschool years (Côté, Vaillancourt, LeBlanc, Nagin, & Tremblay, 2006). Consistent with this finding, Basten et al. (2016) found that children with problem behaviors at ages 1.5 and 3 were at an increased risk to experience problems again at age 6. Research has suggested that without early intervention, socio-emotional and behavioral problems in young children (ages 2 to 6) may lead to psychopathology in middle-childhood and beyond (e.g., Caspi, Moffitt, Newman, & Silva, 1998; Egeland, Pianta, & Ogawa, 1996; Hofstra, van der Ende, & Verhulst, 2002; Mesman & Koot, 2001). Therefore, examining children's adjustment problems early on when children's behaviors are most malleable (Webster-Stratton, & Reid, 2004) is important for the development of intervention and prevention strategies. The present study focused on externalizing behavior problems because externalizing behavior problems are more easily observed, recognized, and identified than internalizing behavior problems in young children (Lee, Kim, Yi, Song, & Kim, 2017). Moreover, higher stabilities over time have been reported for externalizing than for internalizing behavior problems (Burt, Obradović, Long, & Masten, 2008).

The continuation of adjustment problems in children during the early childhood years is also known to be contingent on individual child characteristics, children's parenting experiences, and the socio-cultural context (e.g., Hinde, 1987; Rubin, Burgess, Dwyer, & Hastings, 2003). Given that the prevention of problem behaviors requires an understanding of contributing factors that are amenable to intervention (Olson, Choe, & Sameroff, 2017), the identification of individual, parenting, and contextual characteristics that differentiate the pathways of children's problem behaviors in early childhood will inform the development of more effective prevention programs.

### **Child Temperamental Inhibitory Control and Child Adjustment**

Children's inhibitory control, a core aspect of temperamental effortful control, refers to the capacity to suppress inappropriate actions or responses (Gartstein, Putnam, & Rothbart, 2012). For most children, the temperamental dimension of inhibitory control emerges late in the second year of life and develops throughout the toddlerhood and preschool periods (i.e., 2-to 6-year olds; Gagne & Goldsmith, 2011; Gagne & Saudino, 2010; Gagne, Saudino, & Asherson, 2011; Rothbart, 1989). Although inhibitory control emerges in early childhood, it is most often studied in middle childhood from the executive functioning perspective that broadly encompasses a wide range of cognitive processes and behavioral competences (Chan, Shum, Touloupoulou, & Chen, 2008; Gagne & Saudino, 2016).

Externalizing symptoms, such as aggression, impulsivity, and inattention, represent the most common forms of childhood maladjustment (Campbell, Shaw, & Gilliom, 2000).

Understanding inhibitory control in early childhood is particularly important because children with low inhibitory control have more socio-emotional development issues such as externalizing behavior problems (Eisenberg et al., 2001; 2004; Gagne, Saudino, & Asherson, 2011; Schachar,

Tannock, Marriott, & Logan, 1995). In fact, direct associations between inhibitory control and better psychosocial adjustment, including lower externalizing behaviors, have been documented cross-culturally (e.g., Eisenberg et al., 2005; Huang, Cheah, Lamb, & Zhou, 2017; Kochanska, Murray, & Coy, 1997; von Suchodoletz, Trommsdorff, & Heikamp, 2011; Zhou, Lengua, & Wang, 2009). In addition, the early development of problem behavior typically occurs in the toddlerhood and preschool periods (Campbell, 1995; Keenan & Wakschlag, 2000), and children with behavior problems at this early stage are at increased risk for several poor developmental outcomes (Saudino, Carter, Purper-Ouakil, & Gorwood, 2008). Thus, the need to study these processes in young children is clear. Moreover, the potential contributors to children's externalizing behaviors and inhibitory control skills are also explored, specifically, maternal warmth.

### **Maternal Warmth and Child Adjustment**

Maternal warmth is critical to children's adaptive behaviors across cultures (e.g., Jones et al., 2008; MacDonald, 1992). Warm parenting behaviors include demonstrations of affection and love, acceptance, involvement and interest in children's activities and lives, and provisions of praise toward children's endeavors and accomplishments (Amato, 1990; Rohner, 2004; Wu et al., 2002). Parental warmth is one of the key positive dimensions of parenting (Deater-Deckard et al., 2011; Schaefer, 1965) and affects child temperamental inhibitory control and externalizing problems during early childhood (Eisenberg, Spinrad, & Eggum, 2010). For children across different cultural and socioeconomic groups, warm parenting has been associated with fewer externalizing problems in children (e.g., Berkien, Louwense, Verhulst, & van der Ende, 2012; Chen, Liu, & Li, 2000; Harrist & Waugh, 2002). Therefore, this study considers maternal warmth as an important influence on child externalizing behaviors.

When parents are warm, children tend to internalize their parents' requests for desirable behavior (e.g., inhibiting inappropriate behavior and paying attention) and control their emotions and behaviors (Eisenberg et al., 2005; Reuben et al., 2016). Moreover, warm parents are likely to model constructive ways to manage stress, which may help children use problem-focused coping strategies rather than emotion-focused coping strategies (Halberstadt, Crisp, & Eaton, 1999; Power, 2004). Thus, higher levels of maternal warmth may reinforce and promote on-task, less impulsive, and more planned behavior in children (Eisenberg et al., 2005; Reuben et al., 2016). In contrast, low levels of maternal warmth may interfere a child's capacity to modulate and regulate arousal (Tronick, 1989). Thus, a child may be less capable of considering the consequences of his or her actions and refraining from problematic behaviors (Brody, Dorsey, Forehand, & Armistead, 2002).

Korean immigrant parents are often characterized as being less expressive in their parenting warmth (e.g., little hug, kiss, and praise) due to the traditional valuing of emotional reservedness and hierarchical Korean familial structure (Kim, 2005a; Kim & Cain, 2008; Kim & Hong, 2007). Kim and Hong (2007) found that Korean immigrant parents characterized Korean parenting style with little hugging/kissing and praising and perceived the American parenting styles as having more hugging/kissing and praising. However, their study also found that as Korean immigrant parents adapted to the American society, they tended to use more praise and hugging/kissing with their children, perhaps because such parenting practice is more normative and encouraged in the U.S. culture, where love should be explicitly demonstrated (Gordon, 2000; Kim & Hong, 2007). Consistent with these findings, Korean immigrant mothers have been reported to be warm and accepting with moderate to firm control (Kim, 2005b; Kim & Rohner, 2002; Lee et al., 2018; Shrake, 1996). In addition, Kim and colleagues (2010) found that Korean

immigrant mothers' use of physical affection was positively associated with their children's social competence using the cross-sectional data.

Although maternal warmth has been shown to be important for children's developmental adjustment, how Korean immigrant mothers' warmth is longitudinally linked to their child externalizing behaviors is unknown. Moreover, despite the emphasis on transactional parent-child interactions in shaping child behaviors (Kiff et al., 2011), the longitudinal relations between maternal warmth and child temperamental inhibitory control and its association with child externalizing behaviors has been less explored in Korean immigrant samples.

### **Child Temperamental Inhibitory Control and Maternal Warmth**

The effects of child temperament and parenting on child adjustment have been widely conceptualized using a transactional model (Sameroff, 2009). Child temperament and parenting in such models are expected to mutually influence one another over time (Sameroff, 2009). Indeed, the dynamic interchange between child temperament and parenting has consistently been found to shape child behaviors over time (Kiff et al., 2011). Maternal warmth is known to facilitate children's ability and motivation for behavior regulation and induce positive mood in children (von Suchodoletz et al., 2011). Children, in turn, are willing to regulate their behaviors to continue the positive and satisfying parent-child interactions (Grusec & Davidov, 2007). Thus, maternal warmth might promote the development of emotional and behavioral regulation in children.

Indeed, children's inhibitory control has been positively associated with maternal warmth in both Asian and Western cultures (e.g., Eisenberg et al., 2005; Kiff et al., 2011; Lee et al., 2012). Temperamental inhibitory control is considered to be a favorable and adaptive temperamental trait in both interdependent and independent cultural contexts (Zhou et al., 2009)

although its meaning or how it is perceived by parents may vary culturally. In interdependent cultures, such as Korean culture, children's inhibitory control is encouraged to foster relatedness and the maintenance of interpersonal harmony. In contrast, inhibitory control is promoted to attain autonomy and individual achievement in independent cultures (Trommsdorff, 2012). Although the development of temperamental inhibitory control can have different cultural meanings, the positive function of temperamental inhibitory control on warm parenting (and vice versa) might be similar in both cultural contexts as the association between children's temperamental inhibitory control and warm parenting are known to have positive implications for children's adjustment across cultures (e.g., Zhou et al., 2009).

The association between child temperamental inhibitory control and maternal warmth has not been explored among Korean immigrant families in the United States. However, child temperamental inhibitory control will likely elicit warm and positive parenting in Korean immigrant mothers as they may perceive this temperamental characteristic to also be adaptive in the Western cultural context. Moreover, in order to meet both heritage (collectivistic) and host (individualistic) cultural norms, Korean immigrant parents may use warm parenting practices to promote children's temperamental inhibitory control. Inhibitory control in children can help to simultaneously facilitate interrelatedness at home where interdependent cultural values are more likely to be dominant and foster autonomy outside of the home setting where independent cultural values are more dominant. Thus, Korean immigrant mothers may use warm parenting to foster and continually support their children's temperamental inhibitory control over time.

### **Maternal Acculturation**

For immigrant children's development and parenting, parents' acculturation has been found to be important to consider (Kim et al., 2007; Kim et al., 2012; Yu et al., 2018).

According to ecological systems theory (Bronfenbrenner, 1979, 1992), children's development is influenced by the interconnectedness between multiple layers of social structure.

Bronfenbrenner (2005) identified the 5 systems: *microsystem* (i.e., immediate social and physical environment), *mesosystem* (i.e., linkages among two or more microsystems), *exosystem* (i.e., remote social settings that have an indirect effect on children), *macrosystem* (i.e., cultural beliefs, customs, and laws that incorporate micro-, meso-, and exo-systems), and *chronosystem* (i.e., life transitions and individual changes through time). Incorporating ecological systems theory (Bronfenbrenner, 1979, 1992) in the study of immigrant children, the *macrosystem* provides immigrant families with a social context where parenting takes place, such that cultural beliefs, customs, laws, public attitudes, and social values influence the parenting practices and behaviors of immigrant parents in the microsystem through the acculturation process over time within the chronosystem (Paat, 2010). Therefore, it is important to consider the role of parents' acculturation in children's development (Collins, Maccoby, Steinberg, Hetherington, & Bornstein, 2000; Darling & Steinberg, 1993)

Acculturation involves changes in a person's customs, habits, activities, language, and values over time due to contact between two or more cultural groups and their individuals (Bornstein, 2017; Gibson, 2001). Acculturation is a multidimensional construct that it involves retention of the heritage culture and acquisition of the receiving culture with respect to the components that are assumed to change (e.g., language use, media preferences, and social affiliations; Berry, Phinney, Sam, & Vedder, 2006; Schwartz, Unger, Zamboanga, & Szapocznik, 2010). Korean immigrants living in the U.S. deal with maintenance of their heritage culture (i.e., Korean culture) and adoption of the mainstream culture (i.e., European American culture; Kim et al., 2012). Existing studies on Korean immigrant parenting provided evidence that when Korean

immigrant parents are exposed to European American parenting, they negotiate between Korean and American cultures and reconstruct Korean immigrant parenting to reflect living in a cultural dualism (Kim & Hong, 2007; Kim et al., 2012, Kim et al., 2010). For instance, Kim and Hong (2007) found that while Korean immigrant parents identified spanking/hitting and less hugging/kissing as normative in Korean parenting, they were willing to learn and adapt new discipline strategies that were more accepted in the social norms of the U.S. These parents reported trying to balance the two cultures, for example, using timeout instead of spanking and more praising and hugging/kissing, so that they could nurture competent and well-mannered children (Kim & Hong, 2007).

Moreover, Kim and Hong (2007) and Kim et al. (2012) found that Korean immigrant parents learned to express affection toward their children more freely the longer they were exposed to American culture and parenting. Integration into American culture is important to examine as it appears to be associated with immigrants' successful adjustment to their host society (Kim et al., 2007). Therefore, we examined maternal behavioral acculturation towards the mainstream (i.e., American) culture to better understand the role of culture in the associations among maternal warmth, child temperament, and child adjustment in Korean immigrant families.

Parental acculturation is an important contextual factor that can directly influence parenting and child characteristics and adjustment in immigrant families (Kim et al., 2012, Liu et al., 2008; Yu et al., 2018). For instance, Korean American parents with longer exposure to U.S. culture and parenting are more likely to express affection towards their child more freely (Kim & Hong, 2007; Kim et al., 2012). Similarly, Korean immigrant mothers with higher levels of acculturation toward the American culture were also found to use more warmth than mothers with lower levels of American acculturation (Kim et al., 2007; Shin, Bayram-Ozdemir, Lee, &

Cheah, 2010). Moreover, Korean immigrant mothers' participation in the mainstream culture has been found to be associated with healthier socioemotional and behavioral functioning in their young children (Seo et al., 2017; Shin et al., 2010). Although no studies have examined the association between parental acculturation and child inhibitory control in a Korean immigrant sample, a study on Chinese immigrant families found a positive association between parental American acculturation and children's inhibitory control (Chen et al., 2015).

Immigrant parents' perceptions and evaluation of their children's temperamental characteristics and their parenting socialization behaviors may also be associated with their level of acculturation (Yu et al., 2018). For example, as Korean immigrant parents acculturate towards the mainstream American cultural context, they may perceive children's inhibitory control positively but with the purpose of promoting independence, assertiveness, and autonomy in children, which are valued in American culture (Kim & Sherman, 2007). Thus, mothers who have higher levels of American acculturation and whose child exhibits high inhibitory control may express more warmth towards their child, which is a highly valued parenting practice in the American culture and has been found to be associated with positive adjustment among Asian-American children (e.g., Lee et al., 2012; Liu et al., 2008).

Despite the importance of examining the role of maternal acculturation in understanding mechanisms underlying immigrant children's developmental pathways, no studies have examined the longitudinal associations among maternal acculturation, parenting, child temperament, and child adjustment in Korean immigrant families. However, a recent short-term longitudinal study found that when Chinese immigrant mothers were highly acculturated toward the American culture and when their children were low on inhibitory control, mothers' use of physical punishment predicted more externalizing problems in preschool-aged children (Yu et

al., 2018). This finding suggests some potential pathways for how maternal acculturation, parenting, and child temperamental inhibitory control work together to predict the development of externalizing behaviors in children. Although the effects of parental acculturation on parenting and its associations with child developmental outcomes have been found, the longitudinal direct effects of parental acculturation on child functioning have received less attention despite the emphasis on acculturation as a key process of cultural and psychological changes over time for immigrant parents (Bornstein, 2017).

Moreover, potential transactional child and parenting effects on parental acculturation have not been explored, particularly among Korean immigrant mothers with young children. According to the transactional model of culture ↔ parent ↔ child proposed by Bornstein (2009), parents not only affect their children, but children also actively select, modify, and create their own environments and exert influence on their social surroundings (Bell, 1968; Davidov, Knafo-noam, Serbin, & Moss, 2015; Scarr & Kidd, 1983). In addition, there are reciprocal relations between the environment and parents, such that parents interact with their children using strategies geared to actualize socialization goals that are emphasized by their culture's value system, but their parenting behaviors and practices also contribute to the continuity of culture (Bornstein, 2009). Therefore, specific child characteristics and behaviors may elicit different parenting practices, which may also impact the process of immigrant mothers' participation in the host culture (Gonzalez & Méndez-Pounds, 2018; Kiff et al., 2011).

### **Stability of Child Temperament and Adjustment, Parenting, and Acculturation**

Overall, associations among child temperamental inhibitory control, maternal warmth, maternal acculturation, and externalizing behavior problems in children have been consistently found in the previous literature. However, most research in the field has been cross-sectional

(e.g., Gartstein et al., 2012). Therefore, the direction of causality among the variables has been remained unclear, as studies using cross-sectional data do not control for correlations between variables within the same time point (i.e., cross-lagged effect) and the effect of a construct on itself measured at a later time (i.e., autoregressive effect) (Selig & Little, 2013). Autoregressive effects refer to the stability of the constructs from one occasion to the next and omitting autoregressive effects in an estimated model can cause serious bias in parameter estimation (Gollob & Reichardt, 1985; Kearney, 2017; Selig & Little, 2013). A unique longitudinal relation among constructs can be found when temporal stability in each construct and their concurrent covariation are controlled for (Bornstein, Hahn, & Suwalsky, 2013).

Previous studies have revealed longitudinal stability in child temperament and adjustment, parenting, and acculturation. For instance, children's temperamental inhibitory control was found to be stable across age 2 and 3 years in a longitudinal twin study (Gagne & Saudino, 2016). In addition, moderate stability in maternal warmth across ages 3 to 5 years was reported (Lee, Altschul, & Gershoff, 2013). Stability has been also found for externalizing behavior problems (e.g., Burt et al., 2008; Koot, 1995), such that children with deviant behaviors tend to remain deviant across ages 2 to 6 years old. Regarding acculturation, Chinese American parents' levels of American orientation were found to be highly correlated across 4 years (Kim, Shen, Huang, Wang, & Orozco-Lapray, 2014). However, despite previous evidence for the longitudinal stability of these constructs separately, no studies have examined the longitudinal associations among these variables across three assessment time points, over and above the stability and concurrent covariation among the variables to disentangle the direction of cause and effect within a Korean immigrant sample.

## **Covariates**

In the present study, the following variables were explored as potential demographic control variables because they have been found to be associated with parenting or child adjustment in previous research: child gender and age, and maternal age and education levels. For example, girls tend to display higher levels of inhibitory control and fewer adjustment issues than boys (e.g., Else-Quest, Hyde, Goldsmith, & Van Hulle, 2006; Yu et al., 2018). Gender differences may be revealed in maternal warmth due to the traditional Korean cultural preference for sons over daughters within a patrilineal kinship system (Gupta et al., 2003). However, recent research on Korean immigrant mothers with young children has revealed no gender differences in parenting (Seo et al., 2017), which may reflect decreasing gender inequality and son preference in contemporary Korean families (Choi & Hwang, 2015; Chung & Gupta, 2007).

Regarding child age, Korean immigrant mothers may treat younger children with more affection and indulgence because Korean parents believe that children below the age of 6 are incapable of understanding right from wrong (Kim et al., 1997). Moreover, maternal age and education have been found to be associated with parenting practices, including warmth. Older mothers tend to interact with their children in more sensitive and positively affectionate ways, as older women are generally better educated and more financially secure than are younger mothers (Bornstein & Putnick, 2007).

### **Specific Aims and Hypotheses of the Current Study**

The overall purpose of the present study is to examine pathways toward child externalizing behaviors by evaluating prospective transactional relations across maternal warmth, child temperamental inhibitory control, and maternal acculturation during early childhood in a sample of Korean immigrant families across 3 time points. The four main hypotheses of the present study were evaluated using a series of nested path analytic models and successive nested

model comparisons to determine the most parsimonious and plausible paths among these constructs (see Figure 1). The specific aims and hypotheses are as follows:

**Aim 1:** To examine the stability of each construct (i.e., maternal acculturation, maternal warmth, child temperamental inhibitory control, and child externalizing behaviors) across time and within-time covariation among the constructs (Model 1).

**Hypothesis 1:** We predicted that there would be significant stability of the constructs as well as their covariation at each time point.

**Aim 2:** To examine the transactional relations among maternal warmth, child temperamental inhibitory control, and child externalizing behaviors, over and above the stability of each construct across time points and covariation among the constructs at each time point (Model 2).

**Hypothesis 2:** We expected to find reciprocal influential relations from parent to child variables and from child variables to parent.

**Aim 3:** To explore the direct effect of maternal acculturation towards the mainstream (American) culture on maternal warmth and child temperamental inhibitory control and externalizing behaviors (Model 3).

**Hypothesis 3:** Direct effects from context (i.e., acculturation) to parenting behavior, child temperamental inhibitory control, and child externalizing behaviors were expected.

**Aim 4:** To explore child and parenting effects on maternal acculturation towards the mainstream (American) culture (Model 4).

**Hypothesis 4:** Direct effects of child and parenting variables on maternal American acculturation were expected.

## **Methods**

## **Participants**

The sample was taken from a larger two-year longitudinal data set, which includes four assessment waves. In the present study, we used data from the first, second, and third assessments. At Wave 1, the sample included 199 first-generation Korean immigrant mothers ( $M_{\text{age}} = 35.93$  years,  $SD = 3.68$ ) with preschoolers ( $M_{\text{age}} = 4.30$  years,  $SD = 0.98$ ) residing in Maryland, U.S. Of this sample, 138 mothers responded to the second assessment wave, and 105 mothers responded to all three assessment waves. Most mothers were married (98.50%) and most of them (71.40%) had at least a college degree. The mothers had been in the U.S. for an average of 12.08 years. Both mothers and fathers were ethnically Korean (see specific demographic characteristics in Table 1)

## **Procedures**

Participants were recruited from various organizations including Asian supermarkets, shopping malls, Korean churches and language schools, preschools, and public libraries across Maryland-Washington, D.C. in the U.S. The study procedures were approved by the University of Maryland, Baltimore County Institutional Review Board. A phone screening was initially conducted with potential participants to verify their eligibility, including whether the mother was the primary caregiver of a healthy child between the ages of 2 to 6 years, and that both parents self-identified as ethnically Korean (e.g., “What is your child’s date of birth?” “Are you the primary caregiver of your child?” “Do you consider yourself to be ethnically Korean?” and “Has [the focal child] experienced any serious illnesses or problems in development?”; see Appendix A). The mothers’ preferred language was also identified. After the phone screening, a home visit was scheduled for data collection for Wave 1. During the home visit, bilingual research assistants first reviewed informed consent forms with the mothers, and a copy of the consent

forms was given to the mothers for their records. Mothers then completed the questionnaires in their preferred language. With parents' written approval, teacher ratings on children's socioemotional and behavioral difficulties in the school were obtained via telephone, fax, or email. Three waves of longitudinal data were collected spaced approximately 6 months apart (Wave1: W1, Wave2: W2, and Wave 3: W3).

## **Measures**

All the measures originally available in English were forward- and back-translated into Korean by bilingual researchers to ensure that the same meaning was kept in both versions (Peña, 2007). All discrepancies were resolved through discussions between translators.

**Family demographics information.** The Family Description Measure (FDM; Bornstein, 1991) was used to obtain demographic information on child age, child gender, number of children, maternal age, maternal education, and parental marital status (see Appendix A).

**Child temperamental inhibitory control.** Mothers rated children's temperamental inhibitory control using the Child Behavior Questionnaire (CBQ; Rothbart, Ahadi, Hershey, & Fisher, 2001) at W1, W2, and W3. This measure has been found to be reliable in Korean samples (Shin, 2011), with  $\alpha = .80$ . Mothers rated 10 items that reflect children's inhibitory control abilities on a 7-point Likert-scale from 1 (*extremely untrue of your child*) to 7 (*extremely true of your child*). Sample items include, "Has a hard time following instructions," "Has difficulty waiting in line for something," and "Has trouble sitting still when s/he is told to (at movies, church, etc.)" (see Appendix B).

Due to the lack of evidence on validity of the inhibitory control subscale in a sample of Korean immigrants, confirmatory factor analysis (CFA) was conducted on the 10 items using *Mplus* (Muthén & Muthén 1998–2012) to evaluate the construct validity of the inhibitory control

subscale and confirm the feasibility of applying it to Korean immigrant population. To evaluate the overall model fit, a chi-square test of model fit, root mean square error of approximation (RMSEA), Comparative Fit Index (CFI), Tucker-Lewis Index (TLI), and standardized root mean square residual (SRMR) were taken into consideration. Good model fit was indicated by non-significant chi-square value, CFI and TLI > .95, RMSEA < .06, and SRMR < .08 (Hu & Bentler, 1998). Acceptable model fit was evidenced by CFI and TLI > .90, RMSEA < .08, and SRMR < .10 (Bollen, 1989; Loehlin, 1997).

The values of chi-square ( $\chi^2(35) = 56.79, p = .01$ ) indicated that the model did not fit the data well. However, CFI (.94) and TLI (.92) indicated an acceptable fit, and RMSEA (.06) and SRMR (.05) indicated a good model fit. Given that the chi-square test is sensitive to sample size (Chen, 2007), the non-significant chi-square test could be due to the small sample size in this study. Overall, the goodness-of-fit indices from the CFA indicated that the inhibitory control factor model fit the data well. However, Item 68 (“Is able to resist laughing or smiling when it is not appropriate.”) was removed due to a low factor loading (-0.03) from subsequent analyses. The reliability coefficients (Cronbach’s alpha) were  $\alpha = .76$  at W1,  $.79$  at W2, and  $.81$  at W3.

**Maternal warmth.** The revised version of the Parenting Styles and Dimensions Questionnaire (PSDQ; Wu et al., 2002) was used to measure maternal warmth at W1, W2 and W3. This measure has demonstrated adequate reliability in Korean immigrant samples (Shin et al., 2010), with  $\alpha = .79$ . Moreover, this measure has shown to be valid in a sample of Korean immigrant parents (Lee et al., 2018). Mothers described how often they exhibited each parenting behavior on a 5-point Likert scale: 1 (*never*), 2 (*once in a while*), 3 (*half of the time*), 4 (*very often*), and 5 (*always*). The maternal warmth scale contains seven items (sample item, “I give

praise when my child is good,” “I express affection by hugging, kissing, and holding my child”) (see Appendix C). The reliability coefficients were  $\alpha = .79$  at W1,  $.77$  at W2, and  $.79$  at W3.

**Maternal acculturation.** The Cultural and Social Acculturation Scale (CSAS; Lee 1996) was used to measure mothers’ behavioral acculturation towards the mainstream (American) culture (i.e., American acculturation) in areas of social activities (3 items), language proficiency (4 items), and lifestyle (4 items) at W1, W2, and W3. This measure has been found to be reliable in Korean immigrant samples (Seo et al., 2017), with  $\alpha = .82$ . The American acculturation scale is comprised of 11 items. Sample items include, “How well do you speak in English?”, and “How often do you watch TV in English?” with scales ranging from 1 (e.g., “Almost never,” “Extremely poor,” or “Not at all”) to 5 (e.g., “More than once a week,” “Extremely well,” or “Very much”) (see Appendix D).

The measure has not been validated in a sample of Korean immigrants in previous research. Therefore, confirmatory factor analysis was conducted on the 11 items using *Mplus* (Muthén & Muthén 1998–2012) to confirm the three-factor structure of the American acculturation scale. The values of chi-square ( $\chi^2(41) = 102.54, p = .00$ ) and RMSEA (0.09) indicated that the model did not fit the data well. However, CFI (.94) and TLI (.92) indicated an acceptable model fit and SRMR (.07) indicated a good model fit. Overall, the three-factor model of the American acculturation scale was an acceptable fit for the data. The acculturation construct showed good reliability ( $\alpha = .84$  at W1,  $.78$  at W2, and  $.83$  at W3).

**Child externalizing problems.** The Strengths and Difficulties Questionnaire (SDQ; Goodman, 2001) was used to measure child’s externalizing problems at W1, W2, and W3. The SDQ measure has demonstrated good reliability in Korean immigrant samples (Seo et al., 2017), with  $\alpha = .81$ . Moreover, this measure has shown to be valid in Korean immigrant samples (Lee,

2018). Externalizing scales are comprised of conduct problems (5 items) and hyperactivity symptoms (5 items). Teachers rated child externalizing behaviors on a scale ranging from 1 *not true* to 3 *certainly true*. Sample items include, “Often loses temper,” “Restless, overactive, cannot stay still for long,” and “Often fights with other children or bullies them.” (see Appendix E). The reliability coefficients were  $\alpha = .77$  at W1,  $.79$  at W2, and  $.82$  at W3.

### **Analytic Plan**

A series of nested path analytic models was examined using *Mplus* 8 (Muthén & Muthén 1998-2012). The full-information maximum likelihood estimation (FIML; Little, Jorgenson, Lang & Moore, 2014) was used to handle missing data in *Mplus*. First, we examined the longitudinal stability of maternal acculturation, maternal warmth, child temperamental inhibitory control, and child externalizing behaviors across time and the within-time covariations among them using the baseline model (Model 1). Next, the second model (Model 2) included the same stability and within-time covariation paths as the baseline model as well as 12 additional longitudinal cross-domain paths between parent and child. Model 3 included 6 additional cross-domain paths over Model 2 to examine direct influences of maternal acculturation on both child and parent functioning. Finally, we examined pathways from child and parent to maternal acculturation via the inclusion of 6 additional cross-domain paths in Model 4.

Each model was evaluated controlling for key variables and third-variable causes. We considered child age, child gender, maternal age, and maternal education as potential covariates. To qualify as a covariate in the path model, a candidate variable had to correlate significantly ( $p < .05$ ) with the main study variables. The same covariates were included in each successive path model

The overall model fit was evaluated using the following goodness-of-fit indices: A chi-square test of model fit, root mean square error of approximation (RMSEA), Comparative Fit Index (CFI), Tucker-Lewis Index (TLI), and standardized root mean square residual (SRMR). Statistically non-significant  $\chi^2$  value, CFI and TLI value greater than .95, RMSEA value less than .06, and SRMR value less than .08 are all considered good fit (Bollen 1989; Hu & Bentler 1999). The Satorra-Bentler scaled chi-square (a scaling correction factor, *c*) was used to evaluate chi-square difference tests between successive models to determine whether a model with more estimated parameters (i.e., less parsimony) evidenced better fit to the data relative to a more parsimonious model (Bryant & Satorra, 2012). Models were compared sequentially (i.e., nested) until a nonsignificant chi-square value was obtained.

## **Results**

### **Preliminary Analysis**

Univariate outliers were checked using visual inspection (histogram, box plots, and normal probability plot) and standardized z scores, and no univariate outliers were detected. No multivariate outliers were detected through the Mahalanobis distance. Skewness and kurtosis revealed that the data was normally distributed. The analysis of residual and scatter plots indicated that the assumptions of homoscedasticity, independence, and normality were met.

Missing values were handled using full information maximum likelihood (FIML) through *Mplus* (Muthén & Muthén 1998–2012). Data were missing completely at random, Little's MCAR test,  $\chi^2(203) = 188.36, p = .76$ . The FIML procedure has been found to produce approximately unbiased parameter estimates, particularly at small sample sizes ( $N = 100$ ; Enders & Bandalos, 2001).

The attrition rate was 31% for W2 and 24% for W3 (n = 199 at W1, n = 138 at W2, and n = 105 at W3). T-tests and chi-square tests were conducted to examine whether the participants who withdrew from the study differed from the retained sample (withdrawn vs. retained sample) on key demographic characteristics including child age, child gender, maternal age, and maternal education levels. Participants who withdrew in W2 did not differ from the retained sample in child age ( $M_{age} = 4.36$  vs. 4.27 years),  $t(197) = -0.54, p = .59$ , maternal age ( $M_{age} = 36.05$  vs. 35.88 years),  $t(197) = -0.30, p = .76$ , child gender (54% vs. 41% Male),  $\chi^2(1, N = 199) = 3.13, p = .08$ , and maternal education (71% vs. 72% had at least a college degree),  $\chi^2(4, N = 199) = 5.85, p = .21$ . In addition, participants who withdrew in W3 did not differ from the retained sample in child age ( $M_{age} = 4.30$  vs. 4.30 years),  $t(197) = -0.55, p = .96$ , maternal age ( $M_{age} = 35.71$  vs. 36.12 years),  $t(197) = 0.79, p = .43$ , child gender (47% vs. 43% Male),  $\chi^2(1, N = 199) = 0.31, p = .58$ , and maternal education (68% vs. 74% had at least a college degree),  $\chi^2(4, N = 199) = 4.56, p = .34$ . In sum, the withdrawn and retained samples did not differ with respect to child age, child gender, maternal age, and maternal education levels from W1 to W3.

A logistic regression analysis was further conducted to examine whether attrition from W1 to W3 was related to the sample characteristics and the study variables (n = 199 at W1, n = 138 at W2, and n = 105 at W3). Specifically, we regressed attrition (dropout = 1, retention = 0) on the demographic characteristics of child age, child gender, maternal age, and maternal education levels, and all other study variables at W2 (Nagelkerke  $R^2 = .05$ ) and W3 (Nagelkerke  $R^2 = .13$ ). The results revealed that none of the variables significantly predicted attrition, indicating that attrition was unrelated to these background characteristics and study variables.

Potential covariates considered in this study included child age, child gender, maternal age, and maternal education. At the zero-order level, correlations between child age and child

temperamental inhibitory control at W1,  $r = .18, p < .05$ , W2,  $r = .19, p < .05$ , and W3,  $r = .20, p < .05$ , were significant. Child gender was positively correlated with child temperamental inhibitory control at W1,  $r = .15, p < .05$ , and W2,  $r = .22, p < .01$ . Maternal age and education were positively correlated with maternal acculturation at W1,  $r = .17, p < .05$ , and  $r = .20, p < .01$ , respectively. We therefore added these covariates to each path model consistently throughout model comparisons.

### **Path Analysis Models**

Table 3 shows model fit indices and comparisons of the nested path models. The chi-square difference test using Satorra-Bentler scaled chi-square difference indicated that each successive model fit the data significantly better, except for the final comparison: Model 4 did not fit the data significantly better than did Model 3 despite the added six paths from child and parent to maternal acculturation. Evaluations of the CFI, TLI, RMSEA, and SRMR also suggested Model 3 as the overall most plausible model. Figure 2 presents Model 3 controlling for potential covariates. Among the potential covariates, maternal age significantly predicted W1 maternal acculturation,  $\beta = .15, SE = .06, p < .05$ , maternal education significantly predicted W1 maternal acculturation,  $\beta = .17, SE = .06, p < .01$ , and child age significantly predicted W1 child temperamental inhibitory control,  $\beta = .17, SE = .06, p < .01$ .

**Hypothesis 1.** We predicted that there would be significant stability of the constructs as well as their covariation at each time point. The results from the path analysis in Model 3 revealed that the longitudinal stability paths for maternal acculturation, maternal warmth, child temperamental inhibitory control, and child externalizing behaviors were all positive and significant. Within-wave correlations revealed negative associations between W1 maternal acculturation and W1 child externalizing behaviors,  $\beta = -.17, SE = .07, p < .05$ , positive

associations between W1 maternal acculturation and W1 maternal warmth,  $\beta = .39$ ,  $SE = .06$ ,  $p < .001$ , positive associations between W1 maternal warmth and W1 child temperamental inhibitory control,  $\beta = .29$ ,  $SE = .06$ ,  $p < .001$ , negative associations between W1 child temperamental inhibitory control and W1 child externalizing behaviors,  $\beta = -.34$ ,  $SE = .06$ ,  $p < .001$ , positive associations between W2 maternal acculturation and W2 child externalizing behaviors,  $\beta = .20$ ,  $SE = .09$ ,  $p < .05$ , and negative associations between W2 maternal warmth and W2 child externalizing behaviors,  $\beta = -.19$ ,  $SE = .09$ ,  $p < .05$ . There were no significant within-wave correlations among the variables at W3. Thus, hypothesis 1 was partially supported.

**Hypothesis 2.** We expected to find reciprocal influential relations from parent to child and from child to parent. The results from the path analysis in Model 3 revealed that this hypothesis was not support. W1 child temperamental inhibitory control negatively and significantly predicted W2 child externalizing behaviors above and beyond W1 child externalizing behaviors,  $\beta = -.17$ ,  $SE = .09$ ,  $p < .05$ , controlling for its relation with W1 maternal acculturation, W1 maternal warmth, W1 child externalizing behaviors, and covariates. Children with higher levels of temperamental inhibitory control at W1 had fewer externalizing behavior problems at W2. In addition, W1 child externalizing behaviors negatively and significantly predicted W2 child temperamental inhibitory control,  $\beta = -.16$ ,  $SE = .05$ ,  $p < .01$ , above and beyond W1 child temperamental inhibitory control, controlling for its relation with W1 maternal acculturation, W1 maternal warmth, W1 child temperamental inhibitory control, and covariates. Children with more externalizing behaviors at W1 had lower inhibitory control at W2. Only one significant longitudinal cross-domain path emerged from W2 to W3: Controlling for its relation with W2 maternal acculturation, W2 child inhibitory control, W2 child externalizing behaviors,

and covariates, W2 maternal warmth positively and significantly predicted W3 child temperamental inhibitory control,  $\beta = .21$ ,  $SE = .07$ ,  $p < .01$ . Mothers with higher levels of warmth at W2 had children with higher inhibitory control at W3.

**Hypothesis 3.** We expected direct effects from context (i.e., acculturation) to parenting behavior, child temperamental inhibitory control, and externalizing behaviors. The results from the path analysis in Model 3 revealed that this hypothesis was partially supported. Controlling for its relations with W1 maternal warmth, W1 child temperamental inhibitory control, W1 child externalizing behaviors, and covariates, W1 maternal acculturation predicted W2 maternal warmth above and beyond W1 maternal warmth,  $\beta = .19$ ,  $SE = .07$ ,  $p < .01$ . Mothers with higher levels of acculturation towards the mainstream culture at W1 had higher levels of warmth at W2.

The significant paths between W1 maternal acculturation and W2 maternal warmth and between W2 maternal warmth and W3 child temperamental inhibitory control in the final model (Model 3) suggested that maternal acculturation may be a proximal and distal context for immigrant children's development. Therefore, post-hoc analysis was conducted to examine the mediating role of W2 maternal warmth in the association between W1 maternal acculturation and W3 child temperamental inhibitory control using bootstrapping methods with 5000 replicates and bias-corrected confidence intervals in *Mplus* (Muthén & Muthén 1998–2012). The result showed that maternal warmth significantly mediated the effect of maternal acculturation on child temperamental inhibitory control ( $b = 0.004$ ,  $SE = 0.002$ , 95% CI [0.001, 0.010]). That is, higher levels of mothers' greater behavioral participation in the American culture was associated with higher levels of maternal warmth towards the child six months later, which in turn was related to higher levels of temperamental inhibitory control in children, a subsequent six

months later. The direct effect from W1 maternal acculturation to W3 child temperamental inhibitory control was not statistically significant.

**Hypothesis 4.** Child and parenting effects on maternal acculturation towards the mainstream (American) culture were expected. However, the series of path analysis conducted earlier revealed that Model 4 did not fit the data significantly better than did Model 3. Therefore, the results did not provide evidence for child and parenting effects on maternal acculturation towards the mainstream (American) culture and this hypothesis 4 was not supported.

### **Discussion**

The present study examined longitudinal associations among maternal acculturation, maternal warmth, child temperamental inhibitory control, and child externalizing behaviors in a sample of Korean immigrant families in the U.S. using a transactional design. The best fitting model from the nested path analysis did not provide evidence of transactional relations between parent and child. However, our findings from the final path model (i.e., Model 3) revealed transaction relations between child temperament and adjustment problems, parent-driven effects on the child, and the effect of maternal American acculturation on parenting, over and above the contributions of the stability of these constructs over time.

### **Longitudinal Stability and Concurrent Relations**

Consistent with previous research, our results demonstrated moderate to strong stabilities within the domains of maternal acculturation, maternal warmth, child temperamental inhibitory control, and child externalizing behaviors across time. Such stabilities suggest that individuals who do well or do more at one time are likely to do well or do more over time (Bornstein et al., 2013). Overall, the different strengths and patterns of the concurrent relations among the variables found at each time point in our final model suggest that concurrent correlational

associations among the variables may vary depending on the time of assessment. To decrease redundancy, these concurrent associations and potential underlying mechanisms will be discussed below along with the relevant cross-lagged effects.

### **Transactional Relations between Parent and Child**

Counter to our expectations, we did not find support for reciprocal relations from parent to child and from child to parent. Only one significant transactional association was found between child temperamental inhibitory control and externalizing problems from W1 to W2. The transactional association between child temperamental inhibitory control and externalizing behaviors at earlier waves could be due to common genetic influences during the early years (Saudino, 2005). This transactional association between child temperamental inhibitory control and externalizing behaviors was not significant from W2 to W3, but maternal warmth significantly predicted child temperamental inhibitory control from W2 to W3. Together, these findings support the theoretical propositions that child temperamental characteristics are strongly influenced by biological factors early in life but become more malleable by environmental experiences (e.g., parenting) over time (Shiner et al., 2012). Consistent with findings from previous studies (e.g., Colman, Hardy, Albert, Raffaelli, & Crockett, 2006; Grusec & Goodnow, 1994; Klein et al., 2016), we found that maternal warmth at W2 predicted increases in child temperamental inhibitory control at W3. This finding suggests that maternal warmth may promote the development of self-regulation by providing a supportive and safe environment for children to develop those skills (Klein et al., 2016)

No child-driven effects on parenting were found in this study. Previous research has suggested that parenting may have a greater impact on child temperament than temperament has on parenting during early childhood (e.g., Scaramella, Sohr-Preston, Mirabile, Robinson, &

Callahan, 2008; Klein et al., 2016; Yu et al, 2018). The significant influence of maternal warmth on children's characteristics but not children's characteristics' effects on parenting during the preschool- to early elementary-age period is likely due to young children's greater dependence on their primary caregivers and socializing agent during earlier compared to later developmental stages (Eisenberg et al., 2005; Frick, Christian, & Wootton, 1999). Further support for this notion can be found in the concurrent negative association between maternal warmth and child externalizing behavior at W2 in the final model (Model 3) and a negative trending effect from W2 maternal warmth to W3 child externalizing behavior ( $\beta = -.18, SE = .10, p = .09$ ). Mothers' engagement in warm parenting practices may help children to feel secure and develop positive mental representations of their relationship with others, and decrease their negative emotional and behavioral reactions (Alegre, Benson, & Pérez-Escoda, 2014). Another possible explanation about the lack of child-driven effects of child temperamental inhibitory control or externalizing behaviors on parenting warmth in our study may be that young children are treated with more affection and indulgence because parents believe that children below the age of 6 are incapable of understanding right from wrong in traditional Korean culture (Kim et al., 1997). Therefore, behavioral issues in young Korean immigrant children may not necessary elicit lower levels of maternal warmth because Korean immigrant mothers may attribute such behavioral issues to the child's developmental stage rather than a specific characteristic that needs to be modified based on this cultural belief about the age of understanding.

### **Effects of Maternal American Acculturation on Parent and Child**

Maternal acculturation and maternal warmth were concurrently and positively associated at W1. Mothers' initial levels of behavioral acculturation toward the American culture significantly influenced their level of maternal warmth in a subsequent wave. Consistent with

previous research findings that Korean immigrant parents express more warmth as they are exposed to more American culture (Kim & Hong, 2007), it is plausible that Korean immigrant mothers learn to express warmth more explicitly (e.g., hugging, kissing, and using more praise) through greater participation in social activities and interacting with different socialization agents (e.g., teachers and other parents) from the American society who may possess different ideas about desired characteristics and optimal developmental outcomes in children (Bornstein & Cote, 2010; Bornstein & Lansford, 2010), including more outward demonstration of warmth (Cheah, Li, Zhou, Yamamoto, & Leung, 2016). Therefore, Korean immigrant mothers appear to modify how they show affection towards their children in order to accommodate the cultural values of the host society and promote their children's positive temperamental characteristics and development in the U.S. (Cheah et al., 2013).

Maternal American acculturation did not directly influence child temperament and adjustment after controlling for potential covariates, autoregressive, and contemporaneous correlates. However, the post hoc analysis revealed the significant mediating role of maternal warmth in the association between maternal American acculturation and child temperamental inhibitory control. Mothers with greater behavioral participation in the American culture through better English language skills, social activities with non-Korean friends, and familiarity with the Western lifestyle expressed more warmth towards the child six months later; mothers' warmth practices was in turn related to children's greater temperamental inhibitory control, another six months later. Consistent with an ecological perspective that child development occurs within multiple settings and systems (Bronfenbrenner, 1979), maternal American acculturation may influence child outcomes indirectly through parenting practices. This finding

further highlights the importance of examining acculturation as one of the contextual determinants of parenting in immigrant populations (Foss, 1996).

In the path model, W1 maternal American acculturation was negatively correlated with W1 child externalizing behaviors. Mothers with high levels of American acculturation may tend to have children with low levels of externalizing behaviors perhaps due to less mother-child acculturation gaps or conflicts, which are known to be associated with adjustment problems in children (Marsiglia, Nagoshi, Parsai, & Casro, 2014; Yang, 2009). However, in the subsequent wave, W2 maternal American acculturation was positively correlated with W2 child externalizing behaviors. The change in the direction of the coefficient in this association may be due to a suppressor variable (Tzelgov & Henik, 1991), characterized by having a zero (weak) correlation with the criterion variable (i.e., outcome variable), while being significantly correlated to other independent variables in the regression model (Knowlden, 2014; Krus & Wilkinson, 1986). Guber (1999) reported one type of suppression where the apparent direction of relationship reverses when a control variable is taken into account (Warner, 2013). Therefore, when a third variable is statistically controlled in our model in future studies, the association between W2 maternal American acculturation and W2 child externalizing behaviors may become negative.

Alternatively, this changed coefficient direction may reflect some challenges in Korean immigrant mothers' bicultural balancing (i.e., problems balancing two cultures) as time passes or at this particular point of time. The bicultural management difficulty may be a source of acculturative stress (Kim et al., 2014), which may have contributed to children's adjustment problems through other mechanisms such as engagement in harsh parenting or a more chaotic

household. However, these findings are inconclusive and need to be replicated in future research.

### **Parent and Child Effects on Maternal American Acculturation**

Adding paths from child and parent variables to maternal American acculturation (i.e., Model 4) yielded a theoretically less plausible model. A one-year longitudinal study may be too short a period to reveal child and parental effects on maternal acculturation towards the American culture. Immigrant parents tend to acculturate at a slower rate than their children perhaps because they are more likely to retain and pass on the values of their culture of origin to their children (Phinney & Vedder, 2006). Consistent with our conjecture, a four-year longitudinal study that examined longitudinal changes in acculturation among women from Russian immigrant families in the U.S. found a small linear growth in their American behavioral orientation after controlling for age, suggesting that these women acculturated towards the larger American culture over time but slowly (Miller, Wang, Szalacha, & Sorokin, 2009). Moreover, we found large autoregressive coefficients of maternal American acculturation across 3 waves, suggesting little variance over time; that is, more stability and influence from the previous point. Therefore, these findings suggest that acculturation itself is a slow process and does not change much in a short amount of time unlike parenting behaviors and child outcomes during early developmental period when their changes can be examined within a 6-month interval (Lengua, Honorado, & Bush 2007). Therefore, a one-year longitudinal study might not be sufficient to examine parent and child effects on parental acculturation.

### **Limitations and Future Directions**

Several limitations of the present study should be noted. First, the sample consisted of well-educated and middle-class Korean immigrant families within a particular region of the

United States. Thus, these findings may not generalize to Korean immigrant families from other socioeconomic backgrounds and in other regions of the United States. Research on more socioeconomically and regionally diverse Korean immigrant samples is warranted to ensure representativeness and generalizability of the results.

Second, self-reported maternal warmth may not accurately reflect actual parenting practices and behaviors. Reports from parents are based on the parents' perception whereas observed parenting reflects how parents behave and what they do (Bornstein & Cheah, 2017). Therefore, observational studies should be considered in the future to more objectively assess parenting behaviors. Third, both parenting and child temperament were assessed by mothers, which lead to shared reporter variance issues (i.e., overstating links between variables). Thus, a multi-informant approach should be utilized in future studies.

Fourth, the current study examined the mothers' acculturation toward the mainstream culture as a unidimensional construct. Future studies should examine mothers' maintenance of their heritage Korean culture as well as their acculturation toward the mainstream American culture to have a better understanding of acculturation as a bi-dimensional process (Kim, Chen, Li, Huang, & Moon, 2009). Moreover, the acculturation process can be further divided into behavioral and psychological (e.g., Berry, 1992; Searle & Ward, 1990) acculturation, which may lead to differential changes in parenting behaviors (Birman, 2006; Gassman-Pines & Skinner, 2018; Phinney, 1995; Tahseen & Cheah, 2012) and should be further explored.

Fifth, the limited sample size may have contributed to our failure to find significant transactional associations between child behaviors and parenting. Previous studies that examined bidirectional effects between parenting and child outcomes have suggested that studies with larger sample sizes are more likely to detect small effects that reach the threshold for

declaring statistical significance (Shaffer, Lindhiem, Kolko, & Trentacosta, 2013; Sullivan & Feinn, 2012). For instance, Lansford and colleagues (2018) examined bidirectional relations between parenting and child behavior problems longitudinally with the sample size of 562 and resulted in the detection of relatively small transactional effects (Shaffer et al., 2013). Therefore, larger sample sizes in future studies would lead to more reliable conclusions about our findings.

Last, we only examined maternal parenting and the role of fathers was not examined in this study. Korean immigrant fathers are less involved in parenting and less expressive in affection toward their children than Korean immigrant mothers (Lee et al., 2018) due to the influence of strict Confucian values that do not allow fathers to express their emotions (Kim & Hong, 2007). Therefore, fathers' engagement in parental warmth and its associations with young children's adjustment outcomes deserve attention.

### **Conclusion, Implications, and Applications**

Despite these limitations, our study had several advantageous in design over previous research in that it allowed us to examine the direction and nature of the relations among child, parent, and context across three time points (Bornstein, 2009). Although we did not find transactional relations between parent and child, we found parent-driven effects on child above and beyond the stability of each child characteristic. In addition, within-time covariations among the constructs were revealed. Our examination of the contributions of maternal acculturation to parenting also allowed us to capture the dynamic nature of culture and its impact on the parenting of immigrant mothers.

The findings have implications for designing culturally-sensitive parenting interventions or programs that focus on individual differences in children's inhibitory control and/or externalizing behaviors. Children with low inhibitory control tend to exhibit more externalizing

behaviors and vice versa during the early years. Our evidence on the parent-driven effects on child over time can inform parenting education efforts. For instance, parents with children who exhibit low inhibitory control or more externalizing behaviors may benefit from strategies tailored to managing children's difficulties in controlling their emotions and behaviors.

Our findings can also inform practitioners and service providers that the effects of parenting practices on children of immigrant families may also depend on the broader social-cultural context and how it supports parents' acculturation (Kim, Cain, & Webster-Stratton, 2008). Thus, parenting interventions or programs that promote Korean immigrant mothers' understanding of American culture and support them in negotiating bicultural socialization goals and practices for their children may be beneficial. For instance, while appreciating the parenting beliefs and practices adopted from their heritage culture, practitioners can recommend parenting practices (e.g., expression of parental affection) that are effective in American culture to support Korean immigrant mothers' parenting acculturation. Specifically, young children with low inhibitory control may benefit from parenting interventions or programs aimed at educating Korean immigrant mothers about the importance of engaging in more positive parenting practices, such as parenting warmth, to enhance children's inhibitory control skills. By designing and implementing parenting interventions and programs that consider culture and context, practitioners and service providers can facilitate the adjustment of immigrant parents and promote positive parenting practices.

## **Chapter 5: Overall Conclusions**

Understanding mechanisms that contribute to young Korean immigrant children's positive adjustment in the United States becomes increasingly important as this population grows and forms an integral part of American society. Across three manuscripts, the present

dissertation presented an initial step towards understanding Korean immigrant parenting and their young children's characteristics and adjustment, while considering the unique sociocultural contexts of Korean immigrant families. The first paper examined the mediating role of Korean immigrant mothers' psychological well-being in the longitudinal associations between mothers' emotional versus instrumental support received from their kin, and their authoritarian parenting style with preschool-aged children. To provide a deeper understanding of the parenting behaviors of Korean immigrant mothers in the U.S., the second paper examined the associations among these mothers' observed use of different types of praise and encouragement, their acculturation, their teacher-reported children's socioemotional and behavioral difficulties, and the moderating role of child gender and age. In addition to the examination of parenting and its effects on child outcomes in the first two papers, the third paper explored transactional associations among maternal warmth, child temperamental inhibitory control, child externalizing behaviors, and maternal acculturation in Korean immigrant families with young children across three time points. Taken together, the multi-method (parent-report, observations, and teacher-reports) examination using concurrent and longitudinal data across these three dissertation papers contributed to the current literature in several important ways.

First, this dissertation project provided insights for how to better improve and refine a conceptual model and framework for immigrant parenting. For instance, parenting behaviors and predictive determinants have been commonly and widely studied within Belsky's (1984) process of parenting model in Western context. While Belsky's parenting process model posits three principal social-contextual domains of determinants (parent's personality and other personal psychological resources, child's individual characteristics, and contextual stresses and supports; Bornstein, Hahn, & Haynes, 2011), this dissertation project provided evidence that

there is a need to understand the complex mechanisms of the associations among the determinants and parenting (e.g., mediated and/or moderated associations) and improve the theoretical and conceptual parenting model that captures culturally unique aspects of Korean immigrant parenting by including maternal enculturation (i.e., the maintenance of heritage culture) and acculturation (i.e., acculturation toward the mainstream American culture) levels.

Specifically, the first paper provided empirical evidence that Korean immigrant mothers' social support indirectly influences their parenting style through their psychological well-being. Importantly, the first paper examined culturally distinctive aspects and issues surrounding their social support network that could be uniquely tied to the Korean immigrant mothers' psychological well-being and parenting. In addition, we found that mothers' enculturation and acculturation levels were differentially associated with their use of praise and encouragement in the second paper and maternal American acculturation levels directly influenced maternal warmth in the third paper. Together, the second and third manuscripts suggest that maternal enculturation and acculturation levels should be considered as a determinant of parenting among immigrant families.

Importantly, the findings from the second and third papers also suggest that child characteristics (e.g., child gender, age, and temperament) may not always be direct determinants of parenting among Korean families. In the second paper, the child's gender was not associated with mothers' use of praise and encouragement whereas the child's age was found to moderate the association between mothers' acculturation/enculturation and their use of praise and encouragement. Moreover, although the third paper found that child temperamental inhibitory control was associated with maternal warmth, child temperament did not directly impact parenting. This dissertation project provided evidence to support Belsky's (1984) argument that

child characteristics may not directly determine parenting; instead, child characteristics interact with other determinants of parenting to influence parenting behaviors and practices. Therefore, the available maternal psychological resources and socio-cultural context appear to be the most important determinants of parenting for Korean immigrant mothers with young children.

Second, the dissertation project led to a better understanding of what might be culture-specific Korean immigrant parenting experiences during the process of immigration and acculturation to American society. Compared to European American counterparts, Korean immigrant mothers tend to be characterized as more authoritarian in their parenting style and being less expressive in their parenting warmth (e.g., little praising and hugging/kissing) due to the traditional hierarchical Korean familial structure and valuing of emotional reservedness (e.g., Kim et al., 2012). The second paper used an observational approach to identify specific ways that Korean immigrant mothers may express different forms of praise (category of warmth) when interacting with their children, and the role of Korean culture and acculturation. These findings can shed light on why Korean immigrant mothers may come across as less warm than their European American peers. The first paper further expanded our understanding of such parenting characteristics (i.e., being authoritarian and less expressive in affection) by indicating that Korean immigrant mothers may engage in authoritarian parenting due to their Confucian based heritage value as suggested by previous literature but also how the lack of a specific form and source of social support (i.e., instrumental support from kin) may contribute to such parenting in the Korean American immigrant setting.

Additionally, the second and third papers broadened our knowledge regarding the function of maternal warmth, a positive dimension of parenting, in Korean immigrant families. Mothers' engagement in positive parenting such as the use of praise and encouragement as

observed during a free-play task with their child and their associations with mothers' enculturation and acculturation levels in the second paper provided empirical evidence that Korean immigrant mothers do engage in expressions of warmth through the use of praise and encouragement with their children. In addition, these mothers encourage their children and are likely to praise their children using different forms depending on their enculturation and acculturation levels and their child's age. Moreover, the longitudinal effect of mothers' behavioral participation in the larger American culture on their engagement in warmth practices revealed in the third study provided further empirical evidence for the effects of mothers' acculturation on their parenting over time.

Third, from a methodological perspective, the use of multi-source and multi-method approach (parent-reports, researcher observations, and teacher-reports) in this dissertation project provided a more accurate understanding of the associations among various determinants of parenting, parenting behaviors and practices, and child adjustment outcomes by reducing some issues of shared-method variance and social desirability bias. Moreover, the longitudinal research designs used to detect causal connections between variables advanced our knowledge about how developmental and cultural processes are intertwined and impact both immigrant parents' parenting and their children's adjustment outcomes.

In addition to the significant theoretical contributions to the current literature, there are also important applications of the findings from this dissertation project for promoting the positive adjustment of Korean immigrant families. First, the information gained from the mediated and moderated associations among the determinants of parenting across three papers can guide researchers on identifying specific protective or risk factors for the engagement in negative parenting in future research on Korean immigrant families. Second, understanding the

profound and complex impact of immigration-related sociocultural factors on parenting can provide insights to health practitioners and policy makers in developing more culturally-sensitive prevention or intervention programs that can support families on multiple levels. While considering the parenting goals, beliefs, and practices learned from the parents' heritage culture that parents may continue to hold and engage in, practitioners should be aware of how the immigration context and the process of acculturation may affect these traditional heritage parenting goals, beliefs, and practices, and immigrant parents' adoption of the parenting goals, beliefs, and practices of the mainstream American culture. In addition, practitioners should implement programs that can help connect immigrants to community centers or services that provide parenting support in culturally-compatible manners. For instance, childcare assistance services that provide instrumental support to first-generation Korean immigrant mothers may help those with smaller or less effective kin networks to engage in less negative parenting behaviors. Together, the findings from this dissertation project can inform future researchers, practitioners, and policy makers of ways to provide culturally sensitive and comprehensive parenting support services to Korean immigrant parents and their children to facilitate their positive adjustment in the U.S.

Table 1

*Demographic Characteristics*

Characteristics	Korean immigrant ( $N = 199$ )
Age	
Mother	$M = 35.93$ ( $SD = 3.68$ )
Child	$M = 4.30$ ( $SD = 0.98$ )
Child gender	
Male	45%
Female	55%
Number of children	
One	18%
Two	53%
Three	25.5%
Four	1.5%
Five	2%
Maternal education level	
10 <sup>th</sup> or 11 <sup>th</sup> grade	0.5%
High school graduate or GED	8.2%
Partial college	19.9%
University graduate	44.4%
Graduate degree	27%
Marital status	
Married	98.5%
Married but separated	0.5%
Divorced	0.5%
Remarried	0.5%
U.S. years of residency	$M = 12.08$ ( $SD = 8.58$ )

Table 2

*Zero-order Correlations among the Main Variables and Potential Covariates*

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. W1 ACC	-															
2. W2 ACC	.80**	-														
3. W3 ACC	.83**	.82**	-													
4. W1 Warmth	.39**	.36**	.34**	-												
5. W2 Warmth	.42**	.36**	.34**	.62**	-											
6. W3 Warmth	.25*	.15	.21*	.54**	.66**	-										
7. W1 IC	.11	.08	.03	.28**	.15	.09	-									
8. W2 IC	.15	.07	.04	.26**	.27**	.16	.73**	-								
9. W3 IC	.09	.01	-.03	.32**	.34**	.21*	.65**	.72**	-							
10. W1 EXT	-.17*	-.07	-.09	-.10	-.12	-.12	-.38**	-.41**	-.34**	-						
11. W2 EXT	-.03	.01	-.04	-.07	-.20*	-.06	-.36**	-.42**	-.36**	.59**	-					
12. W3 EXT	-.05	-.08	-.01	-.28**	-.28**	-.16	-.27**	-.36**	-.29**	.38**	.56**	-				
13. Child age	-.01	-.03	-.02	-.10	-.04	-.09	.18*	.19*	.20*	-.12	-.17	-.03	-			
14. Child gender	.07	.02	-.06	-.00	-.05	.02	.15*	.22**	.08	-.10	-.04	-.19	.30	-		
15. Maternal age	.17*	.01	.08	.04	-.00	-.04	.03	.02	.01	-.02	.03	-.05	.21**	.02	-	
16. Maternal EDU	.20**	.14	.18	.06	-.06	-.01	.07	.08	.02	-.08	.05	-.06	-.09	.04	.01	-

*Note.* W1 = Wave 1; W2 = Wave 2; W3 = Wave 3;  $n = 199$  at W1,  $n = 138$  at W2, and  $n = 105$  at W3; ACC = Acculturation; IC = Inhibitory control; EXT = Externalizing; EDU = Education. Maternal education was measured by a seven-point ordinal scale that ranged from “1 = Less than 7<sup>th</sup> grade” to “7 = Graduate/professional degree (MA, MS, MSW, PhD, MD, LLB, JD).” \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ .

Table 3

*Model Fit Indices and Comparisons for Nested Path Models*

Model	Satorra-Bentler scaled chi-square statistic	CFI	TLI	RMSEA	SRMR	Model comparison	Satorra-Bentler scaled chi-square difference test
1	S-B $\chi^2(81) = 136.35, p < .05$	.93	.91	.06	.09	2 vs. 1	$\Delta\chi^2(12) = 30.83, p = .002$
2	S-B $\chi^2(69) = 105.73, p < .05$	.95	.93	.05	.06	3 vs. 2	$\Delta\chi^2(6) = 12.78, p = .047$
3	S-B $\chi^2(63) = 92.87, p < .05$	.96	.94	.05	.05	4 vs. 3	$\Delta\chi^2(6) = 5.15, p = .524$
4	S-B $\chi^2(57) = 87.66, p < .05$	.96	.93	.05	.04		

*Note.* Model 3 was the best fitting model.

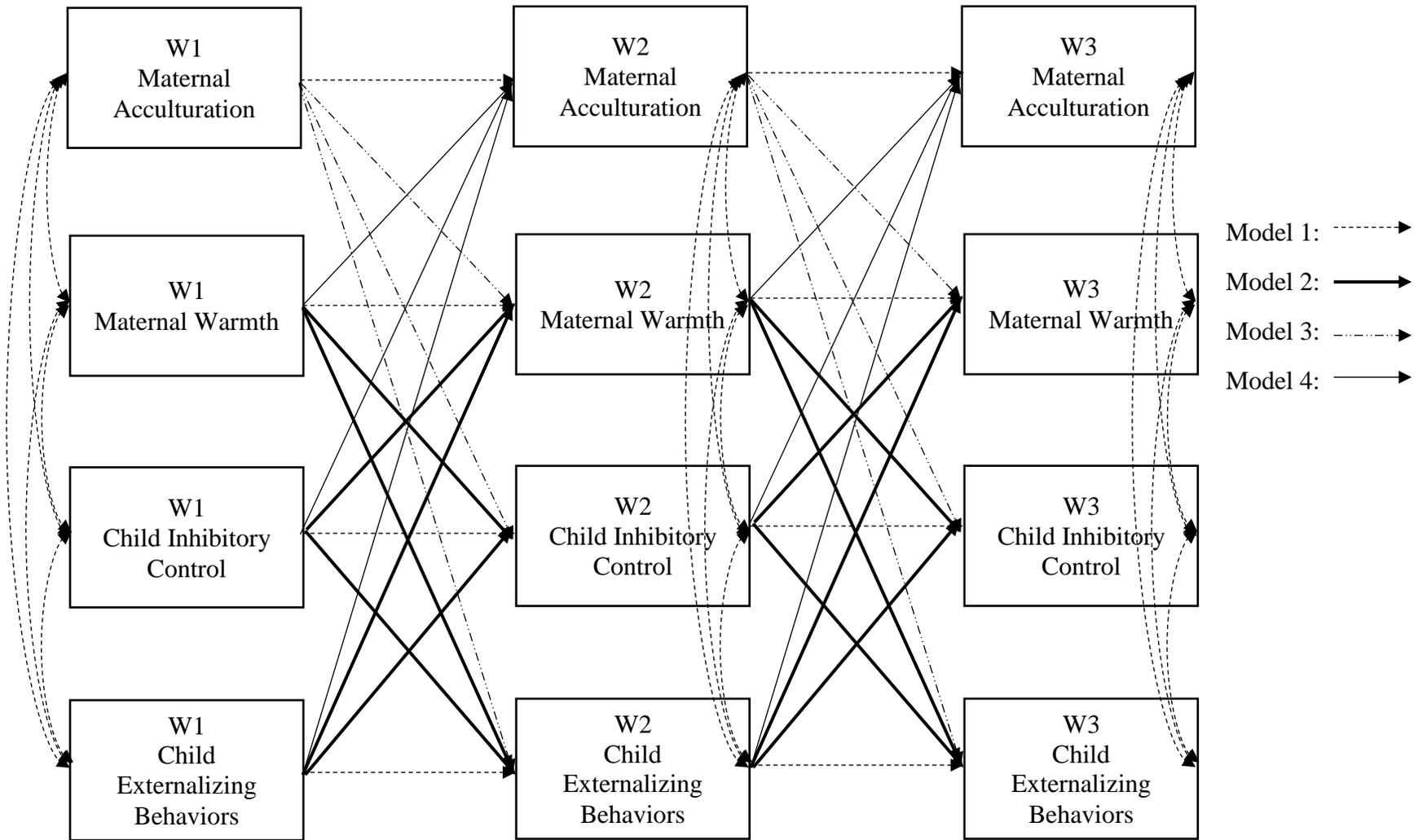


Figure 1. A summary of the freely estimated nested path models. All models include paths from prior models in sequence.

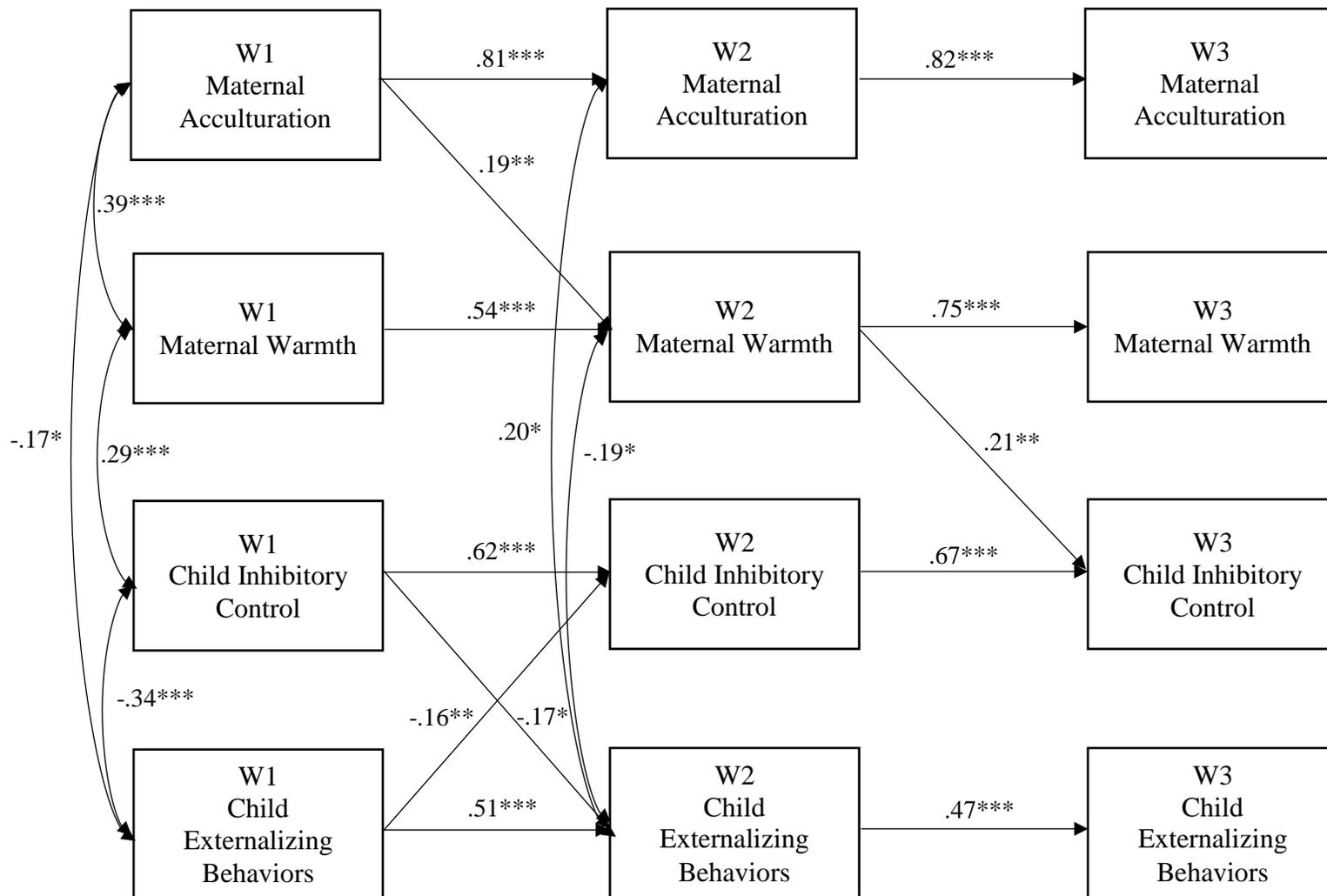


Figure 2. The best fitting model (i.e., Model 3). Numbers represent standardized path coefficients. To facilitate visual readability, only significant standardized coefficients are presented and covariates are not included in the figure. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ . Note. Among the potential covariates, maternal age significantly predicted W1 maternal acculturation,  $\beta = .15$ ,  $SE = .06$ ,  $p < .05$ ,

maternal education significantly predicted W1 maternal acculturation,  $\beta = .17$ ,  $SE = .06$ ,  $p < .01$ , and child age significantly predicted W1 child temperamental inhibitory control,  $\beta = .17$ ,  $SE = .06$ ,  $p < .01$ .

## Appendix A: Family Description Measure (FDM)

This information will assist us in describing the sample of families in this study. All information is strictly confidential and will be reported in group form only.

Person completing this questionnaire: Mother [ ] Father [ ]

### PART I: MY CHILD'S FAMILY

1. What is your marital status?
  1. Single
  2. Married
  3. Married, separated
  4. Divorced
  5. Remarried
  6. Widowed
  7. In a relationship
  
2. Which of these ethnic groups do you consider yourself to be a member of?  
 Korean          Asian          Korean-American          Asian-American          American
  
3. Which of these ethnic groups do you consider your spouse to be a member of?  
 Korean          Asian          Korean-American          Asian-American          American
  
4. What is your country of origin? \_a\_\_\_\_\_
  
5. What is your spouse's country of origin? \_\_\_\_\_
  
6. How long have you been in the U.S.? \_\_\_\_\_year(s) and \_\_\_\_\_month(s)
  
7. Do you have any children other than the one in this study, either by birth, adoption, or by marriage?
  1. No
  2. Yes (Please give details)

Child's Name	Sex	Birth date	Child by Birth (B) /Adoption (A) or Marriage (M)?

8. For your household, please list each person who lives there on a regular basis, including yourself, and provide the following information for each.

Name	Relation to Child	Date of Birth	Sex (M or F)	Education (*Use 7-point scale below)	Highest Academic Degree Received
1.					
2.					
3.					
4.					
5.					

\* Education Scale: Please assign the number of the highest level of education that the person has completed:

1. Less than 7th grade
2. 7th, 8th, or 9th grade
3. 10th or 11th grade
4. High school graduate or GED
5. Partial college (at least 1 year completed); or has completed specialized training
6. Standard college or university graduate (BA, BS)
7. Graduate/professional degree (MA, MS, MSW, PhD, MD, LLB, JD)

**PART II: MY CHILD (CHILD IN THE STUDY)**

1. Child's name:
2. Gender of the child: Male [ ] Female [ ]
3. Has the child experienced any serious illnesses or problems in development (i.e., diagnosed congenital conditions; or medical issues requiring hospitalization, outpatient emergency room treatment, consultation with a specialist, frequent monitoring by your own doctor, or developmental or learning disability)?
  1. No
  2. Yes (Please complete information below)

Nature of Problem	Child's Age at Start of Problem	Type of Help (if any)

4. Does your child have any diagnosed problems with sight or hearing?
  1. No
  2. Yes (Please explain) \_\_\_\_\_

## Appendix B: Child Behavior Questionnaire (CBQ)

### **Instructions: Please read carefully before starting**

The following is a set of statements that describe children's reactions to a number of situations. We would like you to tell us what your child's reaction is likely to be in those situations. There are of course no "correct" ways of reacting; children differ widely in their reactions, and it is these differences we are trying to learn about. Please read each statement and decide whether it is a "true" or "untrue" description of your child's reaction within the past six months. Although some of these questions might seem similar, each one is important for us so that we can paint an accurate picture of your child. Use the following scale to indicate how well a statement describes your child:

If you cannot answer one of the items because you have never seen the child in that situation, for example, if the statement is about the child's reaction to your singing and you have never sung to your child, then circle NA (not applicable).

Parent to Complete (circle):    MOM    DAD

1	2	3	4	5	6	7	NA
Extremely untrue	Quite untrue	Slightly untrue	Neither true nor untrue	Slightly true	Quite true	Extremely true	Not applicable

My child:

- \_\_\_ 1. Has trouble sitting still when s/he is told to (at movies, church, etc.).
- \_\_\_ 2. Has difficulty waiting in line for something.
- \_\_\_ 3. Approaches places s/he has been told are dangerous slowly and cautiously.
- \_\_\_ 4. Is usually able to resist temptation when told s/he is not supposed to do something.
- \_\_\_ 5. Can lower his/her voice when asked to do so.
- \_\_\_ 6. Is able to resist laughing or smiling when it is not appropriate.
- \_\_\_ 7. Is good at following instructions.
- \_\_\_ 8. Can wait before entering into new activities if s/he is asked to.
- \_\_\_ 9. Has a hard time following instructions.
- \_\_\_ 10. Can easily stop an activity when s/he is told "no."

### Appendix C: Parenting Styles and Dimensions Questionnaire (PSDQ)

**Directions:** For items 1 – 7, please rate how often you exhibit this behavior and place your answer on the line to the left of the item.

I EXHIBIT THIS BEHAVIOR

- 1 = Never
- 2 = Once in a while
- 3 = About Half of the Time
- 4 = Very Often
- 5 = Always

- \_\_\_\_ 1. I show sympathy when my child is hurt or frustrated.
- \_\_\_\_ 2. I encourage my child to talk about his/her troubles.
- \_\_\_\_ 3. I give comfort and understanding when my child is upset.
- \_\_\_\_ 4. I tell my child that I appreciate what the child tries to accomplish.
- \_\_\_\_ 5. I give praise when my child is good.
- \_\_\_\_ 6. I express affection by hugging, kissing, and holding my child.
- \_\_\_\_ 7. I am aware of problems or concerns about my child in school.

## Appendix D: Cultural and Social Acculturation Scale (CSAS)

**Directions:** In this questionnaire, we want to know about your experiences living in America. Please circle only one answer which best describes you in each question.

1. When you feel happy or proud, how often do you share this with your Non-Korean friends?  

Almost Never	Once a month	Twice a month	Once a week	More than once a week
-----------------	--------------	---------------	-------------	--------------------------
  
2. When you feel sad or bad, how often do you share this with your Non-Korean friends?  

Almost Never	Once a month	Twice a month	Once a week	More than once a week
-----------------	--------------	---------------	-------------	--------------------------
  
3. How often do you spend time with your Non-Korean friends?  

Almost Never	Once a month	Twice a month	Once a week	More than once a week
-----------------	--------------	---------------	-------------	--------------------------
  
4. How well do you speak in English?  

Extremely poor	Poor	Average	Good	Extremely well
----------------	------	---------	------	-------------------
  
5. How well do you read in English?  

Extremely poor	Poor	Average	Good	Extremely well
----------------	------	---------	------	-------------------
  
6. How well do you write in English?  

Extremely poor	Poor	Average	Good	Extremely well
----------------	------	---------	------	-------------------
  
7. How often do you read English novels or magazines?  

Almost never	Once or twice a month	Once a week	2 to 4 times a week	Almost Everyday
-----------------	--------------------------	-------------	------------------------	-----------------
  
8. How often do you watch TV in English?  

Not at all	A little	Somewhat	A lot	Very much
------------	----------	----------	-------	-----------
  
9. How often do you listen to Western music?  

Almost never	Once or twice a month	Once a week	2 to 4 times a week	Almost Everyday
-----------------	--------------------------	-------------	------------------------	-----------------
  
10. Do you like Western food?  

Not at all	A little	Neutral	A lot	Very much
------------	----------	---------	-------	-----------
  
11. How often do you celebrate Western festivals (e.g. Thanksgiving, Halloween etc.)?  

Never	Hardly ever	Sometimes	Often	Almost all the time
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## Appendix E: Strengths and Difficulties Questionnaire (SDQ)

This questionnaire was completed by: \_\_\_\_\_

**Directions:** For each item, please mark the box for Not True, Somewhat True or Certainly True. It would help us if you answered all items as best you can even if you are not absolutely certain. Please give your answers on the basis of the child's behavior over the last six months.

1 = Not True

2 = Somewhat True

3 = Certainly True

- \_\_\_ 1. Restless, overactive, cannot stay still for long
- \_\_\_ 2. Often loses temper
- \_\_\_ 3. Generally well behaved, usually does what adults request
- \_\_\_ 4. Constantly fidgeting or squirming
- \_\_\_ 5. Often fights with other children or bullies them
- \_\_\_ 6. Easily distracted, concentration wanders
- \_\_\_ 7. Often lies or cheats
- \_\_\_ 8. Thinks things out before acting
- \_\_\_ 9. Steals from home, school or elsewhere
- \_\_\_ 10. Good attention span, sees chores or homework through the end

### **Attachment 1: Published Paper One**

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# The Mediating Role of Korean Immigrant Mothers' Psychological Well-Being in the Associations between Social Support and Authoritarian Parenting Style

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**Abstract** We examined the mediating role of Korean immigrant mothers' psychological well-being in the associations between mothers' emotional vs. instrumental support received from their kin, and their authoritarian parenting style with their preschoolers using longitudinal data. First-generation Korean immigrant mothers with preschool-aged children ( $N = 158$ ;  $M_{\text{maternal age}} = 36.11$  years,  $SD = 3.90$ ;  $M_{\text{child age}} = 4.43$  years,  $SD = 1.10$ ) residing in Maryland, U.S., participated in three assessment waves. Each assessment wave was 6 months apart. Mothers reported on the amount of perceived emotional and instrumental support they received from their kin, their behavioral acculturation towards the American culture, and their family demographic information at Wave 1, their psychological well-being at Wave 2, and their authoritarian parenting style at Wave 3. The results revealed that higher levels of perceived instrumental support (but not emotional support) received from kin predicted higher levels of maternal psychological well-being 6 months later, which in turn predicted lower levels of reported authoritarian parenting style 6 months later. Our findings highlighted the importance of psychological well-being as a mechanism that explains how instrumental support can impact Korean immigrant mothers' parenting style, and the importance of distinguishing between types of support. Services providing instrumental support (e.g., childcare assistance) for first-generation

immigrant mothers, particularly those with smaller or less effective kin networks, appear important to implement.

**Keywords** Emotional and instrumental support · Psychological well-being · Authoritarian parenting style · Korean immigrant mothers

## Introduction

One challenge of migration for many individuals involves the loss of social ties in their home country and the rebuilding of their social support system in the host country (García et al. 2002). For immigrant mothers, a supportive social network can help alleviate adversities that arise in the process of adapting to a new environment, which can have important implications for their parenting (Izzo et al. 2000). Although greater social support has been shown to be associated with less engagement in the authoritarian parenting style among Chinese Canadian immigrant mothers (Su and Hynie 2011), there is a distinct lack of research on mediating processes that may explain this association. Moreover, these processes have not been explored among first-generation Korean immigrant mothers of young children despite the increasing number of Korean families in the U.S. (Zong and Batalova 2014).

Previous empirical studies have suggested that maternal psychological well-being is a potential mediator that can explain the effects of social support on parenting (Lee et al. 2009; Simons et al. 1993). Among Korean immigrants in the U.S., greater perceived social support was found to be positively associated with more positive psychological well-being (Shin et al. 2007). In addition, psychologically well-

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adjusted Korean immigrant mothers have been found to engage in more positive parenting behaviors (Kim 2013). However, the following limitations exist in the literature. First, although the influence of social support on psychological well-being and parenting appear to depend on the forms of support provided (e.g., emotional vs. instrumental support), the unique effects of specific forms of support have not been examined. Second, the effects of support received from kin have not been explored among Korean immigrant mothers who are known to maintain strong kinship networks in the U.S. (Min 2006). Third, most examinations of the effects of support on parenting have utilized cross-sectional data, which preclude understanding of the effects of social support over time. Last, there is great need to examine Korean immigrant mothers' parenting with preschoolers because parenting during the preschool years is associated with later school adjustment, academic achievement, and social success (Gibson-Davis and Grassman-Pines 2010; Oades-Sese et al. 2011).

Korean immigrants are known to maintain strong kinship networks in the U.S. (Min 2006). Kinship refers to social relationships among individuals related by blood or marriage (Dykstra 2009). These relationships are further divided into immediate family formed through lineal relationships and extended family formed through collateral relationships (Dykstra 2009; Johnson 2000). They tend to live within close proximity to their kin and keep in contact with these members in their network more than once a week (Kim and Grant 1997). If the kin members of migrants are already settled at the place of destination, ties among these families tend to be intensified because they are important sources of aid and support for migrants' successful adaptation in the new settlement areas (Goldenberg 1977). In fact, kinship support is the most important resource for the settlement and adjustment of first-generation Korean immigrants in the U.S. Kin members provided both financial and nonfinancial assistance, such as babysitting and legal advice, after immigration (Kim and Hurh 1993; Min 1984). Although previous studies have suggested the importance of social support for Korean immigrants' positive functioning in the U.S., no previous study has empirically examined the role of different types of support provided by kin in Korean immigrant mothers' social network in predicting their psychological well-being and parenting.

Past studies have distinguished between two forms of social support: emotional and instrumental support. Emotional support refers to relational interactions with others that provide intimacy, affection, security, and reassurance (MacPhee et al. 1996; McLanahan et al. 1981). In contrast, instrumental support refers to tangible assistance that is received, such as helping with childcare, lending money, and providing care during illness (MacPhee et al. 1996). Each form of support has been found to influence support

recipients differently (e.g., Helgeson 2003; Morelli et al. 2015). For instance, instrumental support is most needed when individuals' resources are insufficient to meet their needs (Jacobson 1986). When individuals perceive the situation as controllable (e.g., separation of family members and caring for children), receiving instrumental support facilitates their efforts to resolve the problem (Cutrona and Russell 1990). Moreover, instrumental support is considered to be more acceptable and expected from kin compared to non-kin such as friends or coworkers, with whom more formal relationships are formed (Messerli et al. 1993; Thoits 2011). In contrast, emotional support may be more important than instrumental support if the stressor is uncontrollable, such as being a victim of a crime (Cutrona and Russell 1990).

Previous studies also suggest that cultural variations exist in the forms and sources of social support available to individuals (Kim and McKenry 1998; MacPhee et al. 1996; Turney and Kao 2009). For instance, Anglo parents reported having more emotional support from their friends than Hispanic and American Indian parents, whereas Hispanic caregivers had more available babysitters from their close-knit social networks compared to parents from the other two ethnic groups (MacPhee et al. 1996). Moreover, Turney and Kao (2009) found that Asian immigrant parents reported having more instrumental support from family members than their non-immigrant Asian American counterparts. However, the effects of each form of support on the well-being and parenting of Korean immigrant mothers have not been explored.

Korean immigrant parents tend to be characterized as more authoritarian in their parenting style, compared to their European American counterparts (Viden 2001). This preference for the authoritarian parenting style, which is characterized by the endorsement of strict parental control, being less affectionate, and expectations of absolute obedience in children, has been proposed to be due to the influence of traditional Korean familial values of interdependence, hierarchical structure, and family loyalty (Kim et al. 1997; Kim 2005). Supporting this conjecture, a recent study found that traditional Korean disciplinary practices were positively related to the authoritarian parenting style among Korean immigrant mothers. Moreover, higher levels of adherence to their heritage culture were positively associated with the authoritarian parenting style of these mothers (Cho et al. 2013).

Social support, including emotional and instrumental support, has been found to be related to mothers' parenting behaviors and styles (Andresen and Telleen 1992). Specifically, emotional and instrumental support were associated with less punitive parenting behaviors among Hispanic American mothers who were under stress (Hashima and Amato 1994), and greater perceived neighborhood support

predicted the use of less physical punishment among Cambodian immigrant mothers in the U.S. (Tajima and Harachi 2010). Moreover, less social support in general was found to be related to Chinese Canadian immigrant mothers' engagement in authoritarian parenting (Su and Hynie 2011). Thus, it is important to examine how social support may impact Korean immigrant mothers' parenting, specifically their reported engagement in the authoritarian parenting style.

A model of social support (Aneshensel and Stone 1982) posits that social support has a beneficial effect on well-being (Armstrong et al. 2005). Social support is proposed to have a direct and indirect effect on parenting through parents' psychological well-being (Belsky 1984; Simons et al. 1993; Suzuki 2010). According to a conceptual framework proposed by Armstrong et al. (2005), social support influences parental well-being, which in turn influences parenting. Such processes suggest a temporal aspect of the pathways among social support, psychological well-being, and parenting, but this has not been empirically examined in Korean immigrant samples with longitudinal data. Thus, the examination of the mediating role of Korean immigrant mothers' psychological well-being in these associations, to further understand the mechanisms through which Korean immigrant mothers' social support may impact their parenting, is needed.

Psychological well-being comprises multiple aspects of positive psychological functioning, including self-acceptance, purpose in life, personal growth, autonomy, environmental mastery, and positive relations with others (Ryff 1989). Psychological well-being is especially important for immigrant mothers since they may face acculturation and adjustment challenges (Schnittker 2002). Importantly, psychologically well-adjusted mothers were found to engage in more positive parenting behaviors, such as being more engaged and warm toward their children (Belsky 1984; Cheah et al. 2009; MacPhee et al. 1996). Moreover, Chinese immigrant mothers with higher psychological well-being reported using less authoritarian parenting practices (Yu et al. 2016). Thus, the potential beneficial effects of positive psychological functioning for decreasing coercive parenting among Korean immigrant mothers should be explored.

Past literature also suggests that perceived social support is an important predictor of psychological well-being (Balaji et al. 2007; Jasinskaja-Lahti et al. 2006). For example, Shin et al. (2007) found that higher levels of perceived social support were positively associated with psychological well-being among Korean immigrants in the U.S. (Shin et al. 2007). Moreover, social support received from family and relatives has been reported to benefit immigrants' psychological well-being (Finch and Vega 2003; García et al. 2002; Jasinskaja-Lahti et al. 2006). Specifically, instrumental support may be more effective for lessening situational burdens or demands directly,

compared to emotional support (Min 1984; Thoits 2011). In particular, instrumental support may be more important for Korean immigrant mothers' psychological well-being due to the Korean gender ideology of "wise mother and good wife," which may pressure them to be fully responsible for childcare and housework chores, particularly with their less extensive support networks in the U.S. compared to that in Korea (Kim and Chung 2011). Thus, material and practical aid provided by kin members may be more beneficial for mothers' psychological well-being and parenting than emotional support, particularly among first-generation immigrant mothers with young children who need more tangible assistance such as language translation, financial aid, career-related networking and childcare assistance (Min 1984).

Perceived emotional support from family members, relatives, and friends has been known to positively influence individuals' psychological well-being and reduce emotional distress (Thoits 2011). Immigrant mothers may be at greater risk for emotional problems than non-mother immigrants due to caregiver strain and burden in conjunction with other immigration-related obstacles including racism, discrimination, and unemployment (Browne et al. 2017). Emotional support was found to be the most important form of support in its association with postpartum depression among immigrant mothers from China or Vietnam (Chen et al. 2016). However, no study has examined the relative contributions of instrumental vs. emotional support in their associations with maternal psychological well-being and subsequent parenting.

The aim of the present study was to examine the mediating role of Korean immigrant mothers' psychological well-being in the longitudinal associations between their emotional vs. instrumental support received from kin, and their authoritarian parenting style. Overall, instrumental support from kin members in Korean immigrant mothers' social network (measured at Wave 1) was predicted to be more strongly and positively associated with their psychological well-being (measured at Wave 2, 6 months later), and their parenting style (measured at Wave 3, 12 months later) than emotional support received from kin. Moreover, Korean immigrant mothers who received more support from kin were expected to report higher levels of psychological well-being. In turn, higher levels of maternal psychological well-being were expected to be predict less reported use of the authoritarian parenting style.

## Method

### Participants

The sample was taken from a larger two-year longitudinal data set, which includes four assessment waves. In the

present study, we used data from the first, second, and third assessments. At Wave 1, the sample included 158 first-generation immigrant mothers ( $M_{\text{age}} = 36.11$  years,  $SD = 3.90$ ) from South Korea with preschoolers ( $M_{\text{age}} = 4.43$  years,  $SD = 1.10$ ) residing in Maryland, U.S. Of this sample, 105 mothers responded to the second assessment wave, and 82 mothers responded to all three assessment waves. All mothers were married and most of them (73.8%) had at least a college degree. The mothers had been in the U.S. for an average of 10.5 years. The families' Hollingshead index ranged from 17 to 66, with 64.6% of participants classified as middle-class (i.e., Hollingshead scores were 40 or greater; Hollingshead 1975). Both mothers and fathers were ethnically Korean.

We conducted a logistic regression analysis to examine whether attrition from Wave 1 to Wave 3 was related to the sample characteristics and the study variables ( $n = 158$  at Wave 1,  $n = 105$  at Wave 2, and  $n = 82$  at Wave 3). Specifically, we regressed attrition (dropout = 1, retention = 0) on the demographic characteristics of maternal age, years of U.S. residency, socioeconomic status (SES), and all other study variables at Wave 2 (Nagelkerke  $R^2 = .04$ ) and Wave 3 (Nagelkerke  $R^2 = .13$ ). The results revealed that none of the variables significantly predicted attrition, indicating that attrition was unrelated to these background characteristics.

## Procedures

Participants were recruited from Asian grocery stores, Korean churches, preschools, and public libraries in Maryland. With the permission of appropriate personnel from each recruiting site, an information session was hosted to provide mothers with opportunities to ask questions and sign up to participate. A phone screening was initially conducted with mothers who expressed interest in participating to verify their eligibility, including whether the mother was the primary caregiver of a healthy child between the ages of 3 to 6 years, and that both parents were ethnically Korean. The mothers' preferred language was also identified. After the phone screening, a home visit was scheduled for data collection for Wave 1. During the home visit, bilingual research assistants first reviewed informed consent forms approved by the first author's Institutional Review Board (IRB) with the mothers, and a copy of the consent forms was given to the mothers for their records. Mothers then completed the semi-structured interview and questionnaires in their preferred language. The mothers were assessed again 6 months later at Wave 2, and 6 months after that at Wave 3. Thus, all three Waves were 6 months apart. Each wave was 6 months apart (cf. Chang) because our participants were mothers of young children, and young children develop rapidly within a 6-month period in terms of language, cognitive, and socio-emotional development.

Thus, mothers need to fulfill or be aware of the physical as well as socioemotional and cognitive needs of children as they develop (Bornstein et al. 2010), which could influence mothers' psychological well-being and parenting style. Moreover, we could have potentially missed important developmental changes during this early developmental period if we have implemented a 1-year lag. Therefore, we chose a 6-month interval period because it is sufficient to allow us to test temporal aspects of the pathways among the variables of interest (Lengua et al. 2007) but not so long as to allow for too many changes to occur.

## Measures

All the measures originally available in English were forward- and back-translated into Korean by bilingual researchers in order to ensure that the same meaning was kept in both versions (Peña 2007). All discrepancies were resolved through discussions between translators.

### *Family demographics information*

The Family Description Measure (FDM; Bornstein 1991) was used to obtain demographic information on mothers' age, years of U.S. residency, parents' occupation and level of education to calculate their socioeconomic status.

### *Social support*

The Social Network Questionnaire (SNQ; Antonucci 1986) was administered in a semi-interview format to measure social support and social network. The mothers were presented with a hierarchical social mapping diagram of three concentric circles with the word "you" in the center and asked to picture themselves in the middle. The mothers were asked to place the members of their social networks into three concentric circles, ranging from very close relationship in the inner circle to less close in the outer circle. Kin was defined as immediate (e.g., spouse, parents, children, grandparents, and siblings) or extended family (e.g., aunts, uncles, cousins, and other family; Levitt et al. 1993). Mothers then answered a set of questions to assess the total amount of perceived emotional support (5 items; e.g., "Are there people who you talk to when you are upset, nervous, or depressed?" and "Are there people who make you feel good about yourself?") and instrumental support (4 items; e.g., "Are there people who give you money when you really need it?" and "Are there people who babysit for you if you want to go out to have fun?") that they received from kin across all levels within their network structure. For each item, the participants were asked to determine the total number of persons who provide such support. The total score was then calculated by the sum of the total number of

people across the 5 or 4 items (for emotional and instrumental support, respectively) who provided the specific type of support. This measure has been shown to be valid across age, ethnicities, and social classes (Antonucci and Akiyama 1987). In the present sample, Cronbach's  $\alpha$ 's = .84 and .73 for emotional and instrumental support, respectively. The SNQ data were collected at Wave 1.

### *Psychological well-being*

The 18-item version of Ryff's Psychological Well-Being Scale (RWBS; Ryff 1995) was used to measure mothers' psychological well-being in terms of their self-acceptance, positive relations with others, autonomy, environmental mastery, purpose in life, and personal growth. The RWBS has been validated among diverse ethnic groups (Ryff 2014), including Korean immigrants (Cheah et al. 2016). Mothers responded to each item on a scale of 1 (*strongly disagree*) to 7 (*strongly agree*). Examples of items include: (a) self-acceptance, "I like most aspects of my personality"; (b) positive relations with others, "People would describe me as a giving person, willing to share my time with others"; (c) autonomy, "I judge myself by what I think is important, not by what others think is important"; (d) environmental mastery, "I am quite good at mastering the many responsibilities of my daily life"; (e) purpose in life, "Some people wander aimlessly through life, but I am not one of them"; and (f) personal growth, "For me, life has been a continuous process of learning, changing, and growth" (Ryff 1989). An overall well-being composite score was created by summing across all items. Cronbach's alpha for the overall composite in the present study was .79. The RWBS data were collected at Wave 2.

### *Authoritarian parenting style*

A modified version of Parenting Styles Dimensions Questionnaire (PSDQ; Robinson et al. 2001; Wu et al. 2002) was used to assess mothers' authoritarian parenting style. This measure has been validated in a Korean immigrant sample (Shin et al. 2010). The authoritarian parenting style subscale is comprised of: (a) physical coercion (5 items; e.g., "I guide my child by punishment more than by reason"); (b) verbal hostility (3 items; e.g., "I yell or shout when my child misbehaves"); and (c) non-reasoning/punitive (3 items; e.g., "I punish by taking privileges away from my child with little if any explanations"). Mothers rated the frequency of their parenting behaviors described in each item on a scale of 1 (never) to 5 (always). The Cronbach's alpha for the authoritarian parenting style subscale was .90 for the present sample. The PSDQ data were gathered at Wave 3.

### *Acculturation*

In order to control for the effects of maternal acculturation, the Cultural and Social Acculturation Scale (CSAS; Lee 1996) was used to measure mothers' behavioral acculturation towards the mainstream (American) culture in areas of social activities, language proficiency, and lifestyle. This measure has been validated in a Korean immigrant sample (Shin et al. 2010). Sample items include, "How well do you speak in English?", and "How often do you watch TV in English?" with scales ranging from 1 (e.g., "Almost never," "Extremely poor," or "Not at all") to 5 (e.g., "More than once a week," "Extremely well," or "Very much"). The 11 items were summed. Higher score indicates higher level of behavioral acculturation towards the mainstream culture. In the present study, the Cronbach's alpha coefficient was  $\alpha = .85$ . The CSAS data were gathered at Wave 1.

### **Data Analyses**

Missing values were handled using full information maximum likelihood (FIML) through Mplus (Muthén and Muthén 1998–2012) after finding no patterns in the missing data using Little's MCAR test,  $\chi^2(34) = 26.68, p = .81$ . The FIML procedure has been found to produce approximately unbiased parameter estimates, particularly at small sample sizes ( $N = 100$ ; Enders and Bandalos 2001).

Path analysis was performed using Mplus (Muthén and Muthén 1998–2012) to explore the model fit and to examine direct and indirect effects among the variables. To test for the significance of the indirect effects,  $p$ -values and confidence intervals were estimated using bootstrapping methods with 5000 replicates and bias-corrected confidence intervals because the distribution of indirect effect coefficients usually violates normality assumption (Preacher and Hayes 2008). The overall model fit was evaluated using the following goodness-of-fit indices: A chi-square test of model fit, root mean square error of approximation (RMSEA), comparative fit index (CFI), and standardized root mean square residual (SRMR). Statistically non-significant  $\chi^2$  value suggests a good model fit, RMSEA value below .08 and CFI value above .90 indicate acceptable model fit. CFI value greater than .95, RMSEA value less than .05, and SRMR value less than .08 are all considered good fit (Bollen 1989; Hu and Bentler 1999).

### **Results**

Correlations among the main study variables are presented in Table 1. Overall, greater emotional and instrumental supports received from kin were positively and significantly

correlated with maternal psychological well-being. In addition, maternal psychological well-being was negatively correlated with authoritarian parenting style. Emotional and instrumental supports received from kin were not significantly correlated with authoritarian parenting style.

A path model was conducted to examine the mediating role of maternal psychological well-being (measured at Wave 2) on the associations between perceived emotional and instrumental social support (measured at Wave 1) and authoritarian parenting style (measured at Wave 3). In this path analysis, we controlled for mothers' behavioral acculturation towards the American culture and parents' SES (Fig. 1). All covariates and exogenous variables were allowed to co-vary except for the covariance between SES and two forms of social support because both covariances were not significant. The goodness-of-fit indices indicated that the model fit the data well ( $\chi^2(25) = 3.63, p > .05, CFI = .96, RMSEA = .07, SRMR = .04$ ). The RMSEA value indicated an acceptable model fit whereas the indices of  $\chi^2, CFI,$  and  $SRMR$  indicated a good fit. Therefore, statistical significances of direct and indirect effects of the model were subsequently examined to reveal the results of hypotheses testing.

Figure 1 shows the estimated unstandardized coefficients for all direct paths. Greater instrumental support received from kin significantly predicted higher levels of maternal psychological well-being ( $b = 0.43, SE = 0.17, p < .05$ ). Also, higher maternal psychological well-being significantly predicted less reported engagement in the authoritarian parenting style ( $b = -0.02, SE = 0.01, p < .05$ ). Direct effects from the two forms of support received from kin to authoritarian parenting style were not statistically significant.

Indirect effects were examined using a bias-corrected bootstrapping approach. The indirect effect involving emotional support, maternal psychological well-being, and authoritarian parenting style was not statistically significant

( $b = 0.001, SE = 0.002, 95\% CI [-0.001, 0.007]$ ). However, the indirect effect of maternal psychological well-being in the association between instrumental support received from kin and their authoritarian parenting style was statistically significant ( $b = -0.008, SE = 0.004, 95\% CI [-0.019, -0.002]$ ). That is, higher levels of perceived instrumental support received from kin was related to higher levels of maternal psychological well-being, which in turn was related to lower levels of reported authoritarian parenting style.

## Discussion

The present study examined the mediating role of Korean immigrant mothers' psychological well-being in the associations between their emotional vs. instrumental support received from their kin and their reported engagement in the authoritarian parenting style 12 months later. Our correlational results revealed that both instrumental and emotional support received from kin were positively correlated with maternal psychological well-being 6 months later. However, when both forms of support were examined in the same model, only instrumental support predicted positive psychological well-being. Specifically, Korean immigrant mothers who received more instrumental support from their kin reported higher levels of psychological well-being 6 months later.

Instrumental support received from kin had greater effects on Korean immigrant mothers' psychological well-being than emotional support. Korean immigrants' family-centered social support systems are maintained through cultural values that emphasize strong feelings of interdependence within the kinship network (Kim et al. 2006). For first-generation Korean immigrants, the challenges of immigration may require more tangible assistance such as language translation, financial aid, career-related

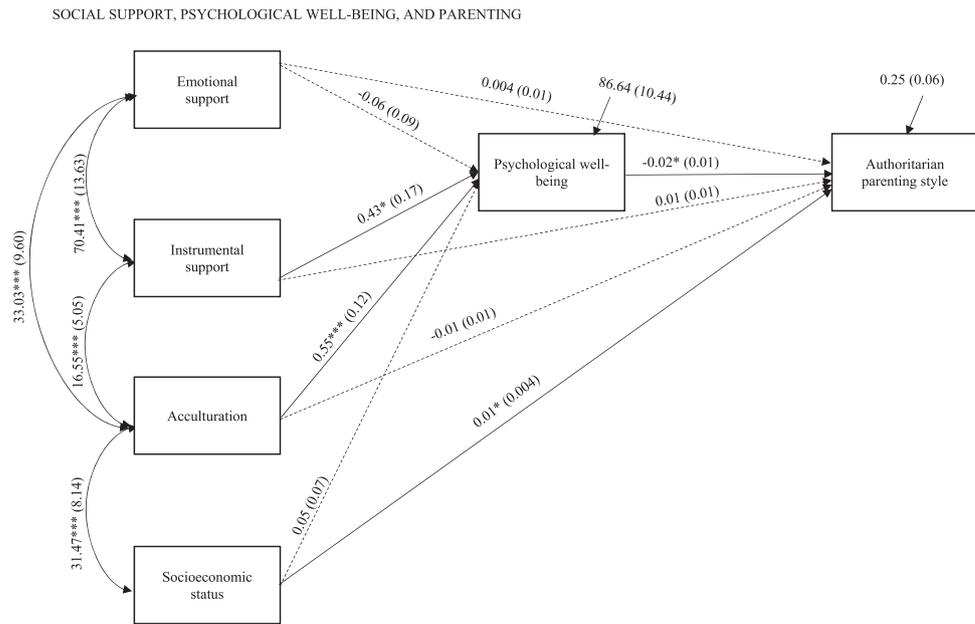
**Table 1** Correlations among the Main Variables

	1	2	3	4	5	6
1. Emotional support received from kin at W1	–					
2. Instrumental support received from kin at W1	.73**	–				
3. Psychological well-being at W2	.24*	.36**	–			
4. Authoritarian parenting style at W3	.04	–.00	–.33**	–		
5. Behavioral acculturation towards mainstream culture at W1	.30**	.31**	.48**	–.15	–	
6. Socioeconomic status at W1	.09	.17*	.21*	.15	.31**	–
Mean	24	10.96	89.89	1.84	32.05	48.78
Standard deviation	13.96	6.97	11.16	0.55	8.54	12.68
Ranges	0–77	0–36	64–117	1–4.38	13–52	17–66

\* $p < .05$ ; \*\* $p < .01$

Note: W1, W2, and W3 refer to Wave 1, Wave 2, and Wave 3, respectively

**Fig. 1** Path model with unstandardized coefficients. *Note:* Numbers in parentheses indicate standard errors. \* $p < .05$ . \*\*\* $p < .001$



networking, and childcare assistance. Such needs may be particularly salient for immigrant mothers with young children. These mothers may rely primarily on family and relatives to offer active coping assistance as receiving instrumental support from these sources is considered more appropriate than from other sources (Messerli et al. 1993).

The Korean immigrant families in our sample were generally of middle-class socioeconomic status. However, 39% of these mothers were employed. Previous research has found that when Korean immigrant mothers do not make an income contribution to the family finances, they are restricted in their ability to spend money without their husbands' permission, and tend to have a little discrete money that they control for their own interests (Lim 1997). Thus, perceived tangible support may then increase a sense of financial security that contributes to immigrants' well-being (Yoon and Lee 2010). Moreover, two items from the instrumental support scale that we utilized pertained to childcare assistance. Childcare assistance from a grandmother or other relatives may be perceived to be the most trust-worthy, reliable and valuable type of support sought by both non-employed and employed first generation Korean immigrant mothers of young children, as kin-provided child care has been traditionally and widely practiced in Korean society (Lee and Bauer 2013). Thus, the perceived childcare support provided by kin would likely enhance first-generation Korean immigrant mothers' well-being.

Finally, one item from the instrumental support scale asked about sources of care for the mother herself when she is sick. A previous qualitative study found that first-generation Korean Americans' primary source of health-related help and advice came from their relatives (Kim et al.

2015). These findings reflect the concept of Korean familism that views kin as the only group on which one can unconditionally rely and trust (Lee and Bauer 2013). However, in terms of psychological and emotional matters, first-generation Korean immigrant mothers may be more likely to avoid or be less inclined to discuss such issues with their kin because controlling one's emotions is considered a virtue reflecting good character that promotes the maintenance of cohesion within the group in collectivistic cultures (Safdar et al. 2009; Uba 1994). In addition, when examined together, instrumental support may play a more significant role in first-generation Korean immigrant mothers' well-being than emotional support because immigrant societies are fundamentally embedded with the mindset of achieving the American dream through financial success and making a better living for their children and for themselves (Hong and Hong 1996; Park 1998). Such goals are likely prioritized over socio-emotional needs for first-generation immigrants. Therefore, instrumental support to support these goals would likely have a greater perceived significance than emotional support for this population. One caveat from the conclusion regarding the positive effects of instrumental support on maternal psychological well-being is that the effects likely vary depending on the specific kin members providing the support (e.g., spouse, parent, or sibling) or the particular type of instrumental support (e.g., financial support vs. childcare assistance), which should be explored in future research.

According to the task-specific model, individuals prefer help from different sources of support (e.g., kin vs. friends) depending upon the nature of the task and service (Messerli et al. 1993). Individuals prefer kin for financial assistance

(Hanlon 1982), temporary child care (Hanlon 1982; Litwak and Szelenyi 1969), and help with household chores (Litwak 1985) because these tasks require caregivers with long-term commitment, which is characteristically shared by kin (Messeri et al. 1993). The aid from kin may be even more salient among Korean immigrant mothers who are characterized as having a strong kinship network in the U.S. Instrumental support from kin may increase Korean immigrant mothers' psychological well-being by promoting their capacity to effectively manage the challenges of navigating the new environment and reduce situational demands (Thoits 2011). In contrast, emotional support from kin may be relatively less effective in promoting well-being because kin may devote more attention to problem-solving by providing material and practical aid to alleviate their loved one's distress as quickly as possible (Thoits 2011). Moreover, sharing emotional and personal distress with family is considered less culturally appropriate in Asian cultures compared to Western cultures because emotional distress may risk undermining harmony within family relationships (Taylor et al. 2004).

Importantly, we found that Korean immigrant mothers' psychological well-being fully accounted for the association between their received instrumental support and reported engagement in the authoritarian parenting style. Korean immigrant mothers with higher levels of psychological well-being, which are promoted by the receipt of greater instrumental support from kin, are less likely to engage in punitive tactics, physical coercion, and verbal hostility with their children. Kin-provided instrumental support may allow Korean immigrant mothers to develop a greater sense of environmental mastery and purpose in life. In turn, positive psychological functioning may build immigrant mothers' feelings of confidence in their parenting role (Costigan and Koryzma 2011; Farmer and Lee 2011). Mothers with more psychological resources were less likely to engage in coercive parenting practices that focus on obtaining child compliance 6 months later.

### Limitations

Several limitations of this study should be noted. First, the current study only examined Korean immigrants in a specific geographical region (Maryland and Washington D.C. metropolitan area). The Washington D. C. metropolitan area is the third-largest ethnic Korean community in the U.S. and Korean immigrants living in this area tend to be more highly educated (Oh et al. 2014). Thus, generalizations of the findings from this study to Korean immigrants in other regions of the country should be made cautiously. Moreover, we only examined kinship networks. The role of non-kin social support requires exploration, particularly for Korean immigrants in the U.S. who are also proposed to

have strong networks through affiliation with Korean ethnic churches and maintain intimate friendship networks with church members both inside and outside the church (Min 1992).

Second, the design of this study was not ideal for examining longitudinal associations since previous levels of each variable were not controlled for in the present investigation (Mitchell and Maxwell 2013). We are therefore cautious about ascribing causation to these relationships. Third, by utilizing only self-report measures, mothers' responses may be influenced by social desirability. Therefore, additional third-person sources of data (e.g., a spouse or friend) regarding support and observational data on parenting should be utilized in future studies. Finally, additional information on the specific sources of support within the kin networks and the different forms of instrumental vs. emotional support would further elucidate the unique functions of these supports. Future studies that overcome these limitations and examine the role of specific source (e.g., spouse vs. parent) and nature of support (e.g., financial aid or childcare) in promoting maternal psychological well-being and positive parenting behaviors are needed.

Despite these limitations, results from this study suggest that Korean immigrant mothers' psychological well-being is an important mediator that explains how instrumental support can impact their parenting style. These findings can inform related future research that focuses on ways to enhance Korean immigrant mothers' psychological well-being. Future studies should also consider examining the effects of non-kinship-based social support on psychological well-being during the immigrant settlement process (Simich et al. 2005).

**Author Contributions** Y.J.S.: Developed the hypotheses, analyzed the data, and wrote the paper. C.S.L.C.: Designed and executed the study and wrote the paper. S.B.O.: Assisted with the data analyses and writing of the study. C.H.H.: Collaborated with the design and writing of the study. C.Y.Y.L.: Assisted with writing of the study. S.S.: Assisted with the data analyses.

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**Conflict of Interest** The authors declare that they have no competing interests.

**Ethical Approval** The University of Maryland, Baltimore County provided IRB approval for the study. All procedures performed in this study were in accordance with the ethical standards of the institutional research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

**Informed consent** Informed consent was obtained from all individual participants included in the study.

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# Korean Immigrant Mothers' Praise and Encouragement, Acculturation, and Their Children's Socioemotional and Behavioral Difficulties

You Jung Seo, Charissa S. L. Cheah, and Craig H. Hart

## SYNOPSIS

**Objective.** This study examined associations among Korean immigrant mothers' use of praise and encouragement, their acculturation, their children's socioemotional and behavioral difficulties, and the moderating role of child gender and age. **Design.** One hundred and twenty Korean immigrant mothers in the United States and their preschool children participated. Maternal praise and encouragement were observed during free-play interactions. Mothers reported their acculturation level, and teachers reported on children's difficulties. **Results.** Mothers used process praise most frequently. Higher maternal American acculturation was associated with more use of person and other praise. Higher Korean acculturation was associated with greater use of person praise among younger children, but less use of person praise among older children. Mothers higher in American acculturation used more encouragement with older children only. Maternal encouragement was associated with fewer child difficulties. **Conclusion.** Korean mothers' acculturation impacted their use of praise and encouragement, and maternal encouragement may be important for decreasing children's difficulties.

## INTRODUCTION

### Maternal Praise and Encouragement

Maternal praise and encouragement comprise positive, supportive, and responsive parenting behaviors (Steelman, Assel, Swank, Smith, & Landry, 2002) and are important contributors to children's social competencies (Shinohara et al., 2012). Maternal praise refers to the positive evaluations of a child's products, performances, or attributes and is considered distinct from simple acknowledgement and feedback (Henderlog & Lepper, 2002). *Process praise* connects children's success to their engagement and effort in tasks (e.g., "You worked hard;" Pomerantz & Kempner, 2013). In contrast, *person praise* links children's success to their fixed traits (e.g., "You are so smart;" Mueller & Dweck, 1998). Finally, *other praise* includes statements with clear positive valence, but without explicit reference to the child's process or traits (e.g., "Very good;" Gunderson et al., 2013).

Maternal encouragement also reflects positive remarks with positive tone in response to child behaviors (Spinrad, 1999). However, encouragement is distinct from praise in that encouragement is future-focused and often used in response to children facing challenges or negative performance outcomes (e.g., "You can do it;" Henderlog & Lepper, 2002). Moreover, encouragement is comparatively less judgmental than praise (Kelly, 2002) and may be a stronger social reinforcer for children

than praise (Kelly & Daniels, 1997). Most studies have examined encouragement provided by teachers in educational settings (Kelly & Daniels, 1997; Webster-Stratton & Reid, 2004).

Maternal praise has been shown to be positively associated with children's early development of social skills (e.g., Shinohara et al., 2012) and negatively related to children's internalizing behaviors (Cole & Rehm, 1986). Children with mothers who support and encourage them are more likely to be popular (Deković & Janssens, 1992). Moreover, when mothers were trained to use praise and encouragement, their children showed reduced conduct problems at school (Webster-Stratton, Reid, & Hammond, 2001). However, no study has examined the associations between mothers' observed use of different forms of praise and encouragement at home and teacher ratings of children's socioemotional and behavioral difficulties in school, particularly among Korean immigrant families in the United States.

### **Culture and Acculturation in Parenting**

The use and consequences of maternal praise and encouragement are influenced by the cultural context (Jose & Bellamy, 2012; Wang, Wiley, & Chiu, 2008). Traditionally, mothers in Confucian-based societies are discouraged from using praise (e.g., Kim & Hong, 2007). Humility and modesty are highly valued, and praise is considered harmful to building children's character and success (Huang & Gove, 2012). Praise and encouragement are also perceived as potentially diminishing parents' authority (Cheah & Li, 2010). Oh and colleagues (2002) found that Korean mothers praised their children less than Australian mothers. Moreover, Kim and Hong (2007) found that first-generation Korean American parents believed that American parents praise their children too much.

For Korean parents in the United States, the negotiation of Korean and American cultures through the process of acculturation may be challenging (Berry, 2005). Korean immigrant mothers with higher levels of acculturation toward the American culture use more warmth (including praise) and encouragement of autonomy than mothers with lower levels of acculturation (Shin, Bayram-Ozdemir, Lee, & Cheah, 2010). Before migrating to the United States, Korean immigrant mothers are reared in a cultural environment where parental care and acceptance toward a child are expressed more implicitly (Oh et al., 2002). Thus, overt expressions of praise and encouragement to a child may come less naturally to mothers who adhere more strongly to traditional Korean culture (Choi & Kim, 2010). As a part of the process of acculturation toward the U.S. culture, Korean immigrant mothers may increase their use of praise and encouragement with their children, which are more positively valued practices in the mainstream American culture (Cheah, Leung, & Zhou, 2013).

### **Child Gender and Age**

Leaper, Anderson, and Sanders (1998) found that European American mothers expressed more praise with daughters than with sons, but Gunderson et al. (2013) did not find such a difference. Among Korean immigrant mothers, gender differences may be revealed in their use of praise and engagement due to the cultural preference for sons over daughters within a patrilineal kinship system (Gupta et al., 2003). However,

research on Korean mothers with young children has revealed few or no gender differences (Cheah & Park, 2006; Farver & Lee-Shin, 2000).

Maternal praise and encouragement and their effects on children's developmental outcomes may also vary by child age. European American parents tend to use less person praise as children get older (Gunderson et al., 2013). Although parental praise and positive affect are generally discouraged in Korea, young children are treated with more affection and indulgence because parents believe that children below the age of 6 are incapable of understanding right from wrong (Kim, Kim, & Rue, 1997). In contrast, older children are treated with more strictness toward a focus on achievement (Ho, 1989).

### Present Study Aims

The first aim was to assess first-generation Korean immigrant mothers' rates of engagement in three types of praise (process, person, and other) and encouragement in the United States. The Confucian-influenced East Asian cultural learning model emphasizes the "learning virtues" of diligence, self-exertion, and "endurance of hardship, perseverance, concentration, and humility" (Hess & Azuma, 1991; Li, 2003). Thus, Korean immigrant mothers were expected to use more process praise that attend to the child's effort toward the development of these virtues than other forms of praise.

Second, we aimed to examine associations between mothers' behavioral acculturation toward U.S. culture and their heritage Korean culture with their use of praise and encouragement. We also explored the moderating role of child gender and age in these associations. Mothers' American acculturation was expected to be associated with more, and maintenance of their traditional Korean culture was expected to be associated with less, use of praise and encouragement because affectively demonstrative parenting behaviors are more encouraged in Western than Eastern cultures (Cheah, Li, Zhou, Yamamoto, & Leung, 2015). We expected Korean immigrant mothers to use more praise with younger children and more encouragement with older children, reflecting the cultural focus on indulgence in the early years and emphasis on achievement in the later years (e.g., Chao & Tseng, 2002; Ho, 1989). However, no directional hypotheses were proposed for gender differences due to the lack of consistent findings in the literature.

Third, we investigated relations between mothers' use of praise and encouragement and their children's socioemotional and behavioral difficulties in the school setting and the moderating role of child gender and age in these associations. Korean immigrant mothers' use of praise and encouragement were predicted to be associated with fewer child socioemotional and behavioral difficulties due to the positive benefits of supportive parenting behaviors in both U.S. and Korean cultures (e.g., Kim, Doh, Hong, & Choi, 2011; Webster-Stratton et al., 2001).

## METHOD

### Participants

One hundred and twenty first-generation Korean mothers ( $M_{\text{age}} = 36.09$  years old,  $SD = 3.84$ ) and their 2- to 6-year-old children ( $M_{\text{age}} = 4.44$  years,  $SD = 1.02$ ; 40% boys) residing in MD participated in this study. All fathers were first-generation Korean

immigrants. Mothers were mostly married (95.80%), highly educated, and had been in the United States for an average of 11.36 years. Most of the children (84.90%) were born in the United States. Participants were recruited from grocery stores, churches, pre-schools, and public libraries.

### Procedure

After verifying that the mother was the primary caregiver of a healthy child, that both parents were ethnically Korean, and the preferred languages of mother and child (Korean or English), a team of bilingual research assistants visited the family and obtained informed consent from the mothers as regulated by the authors' Institutional Review Board (IRB). Mothers completed questionnaires, and their interactions with their children during a 15-min free-play with a standardized set of toys were videotaped (Rubin, Cheah, & Fox, 2001). Mothers could speak either in Korean or English during the free-play session. Mothers received \$40 for their participation. Teachers were asked to rate children's socioemotional and behavioral difficulties in the school via telephone.

### Measures

All the measures originally available in English were translated into Korean and back-translated into English by bilingual researchers (Peña, 2007).

**Maternal Acculturation.** The Cultural and Social Acculturation Scale (CSAS; Lee, 1996) was used to measure mothers' acculturation toward the mainstream American culture and maintenance of their heritage Korean culture across various aspects of their behavioral life. This measure has been validated in a Korean immigrant sample (Shin et al., 2010). Items were summed to derive separate total Korean and American dimension scores. In the present sample, Cronbach's  $\alpha$  = .82 and .74 for the American and Korean factors, respectively.

**Teacher Ratings of Children's Socioemotional and Behavioral Outcome.** Children's socioemotional and behavioral outcome in the classroom was obtained using the Strengths and Difficulties Questionnaire—Teacher (SDQ-T; Goodman, 1997). Children's total difficulties were calculated by summing the scores of four factors: emotional symptoms, conduct problems, peer problems, and hyperactivity/inattention. Teachers responded to 25 items on a scale ranging from 1 *not true* to 3 *certainly true*. This measure has been validated on a Korean American sample (Yu, Sun, & Cheah, 2015), and Cronbach's  $\alpha$  = .81 in the present study.

**Observed Maternal Praise and Encouragement: Coding and Reliability.** Mothers' engagement in praise and encouragement during the free-play task were coded following Rubin and Cheah (2009) and Gunderson et al. (2013), using the Mangold INTERACT behavioral observation coding software. The praise scale assessed the frequency of mothers' positive statements indicating positive evaluation of her child during the free-play session. Codes of communicative content consisted of process, person, and other praise (see Table 1 for examples). The encouragement scale assessed the frequency of the mothers' use of verbal statements or non-verbal gestures that showed emotional support to keep the child engaged in his or her task. Proportion scores were created for each type of

**TABLE 1**  
Percentages and Proportions of each type of Praise and Encouragement

Praise and encouragement	Examples	Percentage of mothers who engaged in praise and encouragement (out of 120 mothers)	Proportion of incidences that mothers engaged in each type of praise (out of the total number of praise)
Praise		75.80	
Process praise	Well done. You have done a good job. Good try.	63.30	.66
Person praise	You are so smart. Good boy/girl. You are so thoughtful.	19.20	.07
Other praise	Good. Excellent. Awesome.	38.30	.27
Encouragement	Verbal statement: You can do it. You are almost there. Non-verbal gestures: Patting on the child back to keep him/her going	21.70	

praise and encouragement. Two coders coded 20% of the cases to establish reliability. Cohen's Kappas for each type of praise and encouragement ranged from  $\kappa = .90$  to  $.99$ .

## RESULTS

### Maternal Praise and Encouragement

The percentages of mothers in the study who engaged in praise and encouragement and the proportion of each of the three types of praise in which the mothers engaged out of the total number of praise are presented in Table 1. Correlations among the main study variables are presented in Table 2. Child gender was not correlated with any other study variables, and no child gender main or interaction effects were revealed. Thus, this variable was removed from further analysis.

### Acculturation in Relation to Maternal Praise and Encouragement

Hierarchical multiple regression analyses were conducted to examine whether mothers' level of acculturation toward American culture (American acculturation), maintenance of the Korean culture (Korean acculturation), as well as their interactions with child age were associated with each praise and encouragement outcome variable (Table 3). All independent variables were centered at their means to minimize non-essential multi-collinearity (Cohen, Cohen, West, & Aiken, 2003).

**TABLE 2**  
Correlations among main variables

	1	2	3	4	5	6	7	8
Maternal variables								
1. Process praise	—							
2. Person praise	.29**	—						
3. Other praise	.24**	.28**	—					
4. Encouragement	.25**	.41**	.45**	—				
5. AA	.10	.14	.31**	.32**	—			
6. AK	-.13	-.15	-.24**	-.31**	-.42**	—		
Child variables								
7. Child age	-.17	.16	-.04	.15	-.12	.00	—	
8. Total difficulties	-.04	.00	-.14	-.32**	-.23*	.24*	-.09	—

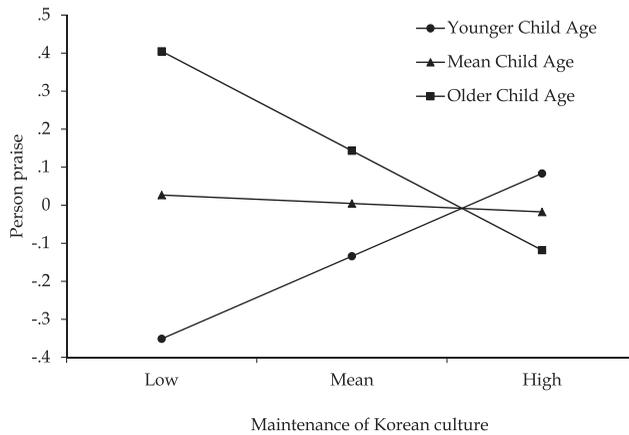
Note. AA = Acculturation toward American culture, AK = Acculturation toward Korean culture (maintenance of Korean culture).  
\* $p < .05$ , \*\* $p < .01$ .

**TABLE 3**  
Hierarchical multiple regressions predicting praise and encouragement

	Person praise			Process praise			Other praise			Encouragement		
	B	S.E.	$\beta$	B	S.E.	$\beta$	B	S.E.	$\beta$	B	S.E.	$\beta$
Step 1												
AA	.01	.01	.12	.02	.07	.03	.10*	.04	.25*	.04**	.01	.26**
AK	-.01	.01	-.10	-.08	.07	-.12	-.06	.04	-.14	-.03*	.02	-.20*
CA	.10	.05	.20	-.66	.35	-.18	.01	.20	.00	.16*	.07	.19*
R <sup>2</sup>		.06			.05			.11			.17	
$\Delta R^2$		.06			.05			.11			.17	
F change		2.52			1.92			4.63**			7.78***	
Step 2												
AA	.02*	.01	.21*	.02	.07	.04	.11**	.04	.29**	.04**	.01	.28**
AK	-.00	.01	-.04	-.08	.07	-.11	-.05	.04	-.12	-.03*	.02	-.22*
CA	.13**	.05	.23**	-.64	.34	-.17	.05	.20	.02	.16*	.07	.19*
AA × CA	—	—	—	.01	.06	.01	.03	.03	.07	.03*	.01	.20*
AK × CA	-.04***	.01	-.34***	-.03	.08	-.04	-.06	.04	-.13	—	—	—
R <sup>2</sup>		.17			.05			.13			.21	
$\Delta R^2$		.11			.00			.02			.04	
F change		14.79***			.08			1.46			5.32*	

Note. Due to a metric issue, proportion scores of each praise and encouragement were multiplied by 100. Non-significant interaction terms were removed from the final model.  
AA = Acculturation toward American culture, AK = Acculturation toward Korean culture (maintenance of Korean culture), CA = Child age.  
\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ .

Results of the hierarchical multiple regression analysis for person praise indicated significant main effects for mothers' American acculturation and child age,  $\beta = .21$ ,  $t(112) = 2.11$ ,  $p < .05$ ,  $f^2 = .04$  and  $\beta = .23$ ,  $t(112) = 2.67$ ,  $p < .01$ ,  $f^2 = .06$ , respectively, but not for mothers' Korean acculturation,  $\beta = -.04$ , *ns*. There was also a significant interaction



**FIGURE 1**

Child age as a moderator between mothers' maintenance of Korean culture and their use of person praise.

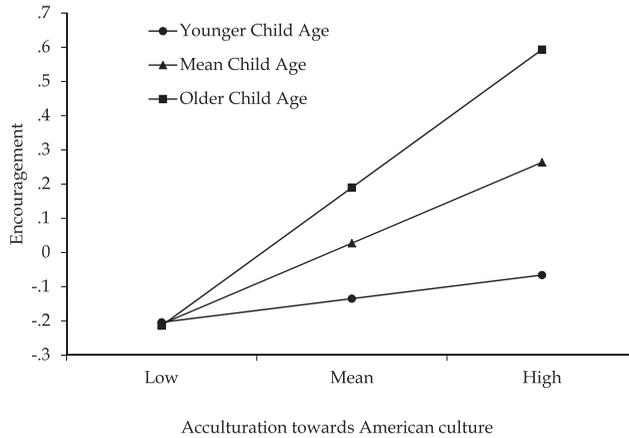
between the mothers' Korean acculturation and child age in relation to person praise,  $\beta = -.34$ ,  $t(112) = -3.85$ ,  $p < .001$ ,  $f^2 = .13$ . A simple slope test was conducted at the mean, and 1 *SD* above and below the mean on child age (Aiken & West, 1991; Cohen et al., 2003) revealed that, at younger child ages, mothers' Korean acculturation was positively associated with person praise ( $b = 0.04$ , 95% CI [0.01, 0.07]). However, at older child ages, mothers' Korean acculturation was negatively associated with person praise ( $b = -0.05$ , 95% CI [-0.07, -0.02]; Figure 1).

The hierarchical multiple regression analysis on process praise revealed no significant main effects or interaction effects. Finally, the hierarchical multiple regression analysis on other praise indicated that the mothers' level of American acculturation was positively associated with other praise,  $\beta = .29$ ,  $t(111) = 2.86$ ,  $p < .01$ ,  $f^2 = .07$ . No other main effects or interaction effects were found.

Results of the regression analysis for encouragement revealed that mothers' American acculturation,  $\beta = .28$ ,  $t(111) = 2.85$ ,  $p < .01$ ,  $f^2 = .07$ , and child age,  $\beta = .19$ ,  $t(111) = 2.17$ ,  $p < .05$ ,  $f^2 = .04$ , were positively associated with mothers' use of encouragement. Moreover, mothers' Korean acculturation was negatively associated with their use of encouragement,  $\beta = -.22$ ,  $t(111) = 2.30$ ,  $p < .05$ ,  $f^2 = .05$ . Child age also significantly moderated the association between the mothers' American acculturation and use of encouragement,  $\beta = .20$ ,  $t(111) = 2.29$ ,  $p < .05$ ,  $f^2 = .05$ . A simple slope test revealed that at mean and older child ages, mothers' American acculturation was positively associated with their use of encouragement ( $b = 0.04$ , 95% CI [0.01, 0.07] and  $b = 0.07$ , 95% CI [0.03, 0.10], respectively), but not at younger child ages (Figure 2).

### Associations of Maternal Praise and Encouragement With Children's Socioemotional and Behavioral Difficulties

Hierarchical regression analyses were conducted to examine the association between each praise and encouragement behavior and children's total difficulties, and the moderating role of child age in these associations. All independent variables were centered at their means.



**FIGURE 2**

Child age as a moderator between mothers' level of acculturation toward the American culture and their use of encouragement.

No significant main effects of any type of praise or their interactions with child age were revealed. However, mothers' use of encouragement was negatively associated with children's total difficulties,  $\beta = -.38$ ,  $t(110) = -3.44$ ,  $p < .01$ ,  $f^2 = .11$ . There was no interaction between child age and mothers' encouragement on children's total difficulties.

## DISCUSSION

As expected, Korean immigrant mothers engaged in process praise most frequently, followed by other praise and person praise. Process praise may be preferred due to Asian parents' stronger valuing of effort over ability (Stevenson & Lee, 1990). Mothers who participated more in the American culture directed more person praise toward their children during free-play interactions, because they are more likely to perceive person praise as a desirable means to increase self-confidence in their children within the new cultural context (Cheah et al., 2013). Mothers' acculturation was not associated with their use of process praise, indicating that the preference for reinforcing children's effort and focusing on the task at hand was maintained regardless of mothers' acculturation.

General forms of praise not targeted toward the individual or the task might be less familiar to mothers who are less involved in the mainstream culture, perhaps because the English vocabulary for other praise terms (e.g., "awesome" and "excellent") are difficult to directly translate into Korean. Therefore, Korean immigrant mothers with better English language skills and more interactions within the mainstream cultural context may be more familiar and comfortable with using other praise.

Korean immigrant mothers praised and encouraged girls and boys similarly, which may reflect decreasing gender inequality in contemporary Korean families (Chung & Gupta, 2007). Mothers who maintained their Korean culture used more person praise during free-play if they had younger versus older children, which is consistent with the traditional notion of parental indulgence in and nurturance of young children within

East Asian culture (Chao & Tseng, 2002; Kim et al., 1997). Moreover, Korean immigrant mothers with more traditional lifestyles may provide less person praise to older children to avoid undermining their effort and achievement (Pomerantz & Kempner, 2013). Although past literature suggests that Asian parents' expectations for their children's ability to comprehend and take responsibility for themselves (e.g., self-care and performing chores) change at about 6 years of age (Chao & Tseng, 2002), it is most likely that the expectations and behaviors of mothers, including the Korean immigrant mothers in our sample, gradually change within the preschool to school-age range, rather than distinctively right at age six.

Mothers who participated in their Korean culture more were also less likely to encourage their children perhaps because they believe that encouraging a child can threaten his or her development of modesty (Cameron, Lau, Fu, & Lee, 2012), or mothers' lack of familiarity with this form of support. Indeed, mothers who participated in American culture at higher levels provided more encouragement to their older children. Encouragement may direct children's attention away from self-glorification and provide opportunity for improvement through further effort (Dinkmeyer & Dreikurs, 2000). Thus, this parenting practice remains consistent with the focus on the task, and may be more acceptable to Korean mothers, particularly among those with older children who are socialized toward achievement. Therefore, Korean immigrant mothers appear to be combining parenting goals and practices from both the mainstream and their heritage cultures (Cheah et al., 2013).

### **Associations With Children's Socioemotional and Behavioral Outcomes**

Unexpectedly, Korean immigrant mothers' use of praise was not related to their children's socioemotional and behavioral difficulties. However, maternal encouragement was associated with children's fewer socioemotional and behavioral problems in school. Encouraging and supportive parenting in response to children's negative emotions may promote children's emotional understanding and regulation so that they are able to manage their own distress in other contexts. Maternal encouragement may also help children understand appropriate social behaviors, respond with concern to others' needs (Spinrad, 1999), and experience fewer difficulties in the school setting. Due to the less clear meaning of praise and its use among Korean immigrant mothers, other child outcomes should be examined. Maternal praise may be more strongly associated with the development of positive behaviors than difficulties.

### **Limitations and Future Directions**

Several limitations of this study should be noted. First, the direction of causality among the variables cannot be inferred due to the cross-sectional nature of the study, necessitating future longitudinal studies. Moreover, generalizations of these findings to Korean immigrants in other regions should be made cautiously. Furthermore, mother-child interactions were observed in only one limited unstructured setting. Thus, mothers' use of praise and encouragement during more goal-oriented tasks should be examined. The role of fathers was not examined. Although Korean immigrant mothers remain the primary caregivers of their young children (Kim, 2008), fathers' engagement in praise and encouragement and associations with child outcomes deserve attention. Finally, we focused on mothers' behavioral acculturation (Berry, 2005), but different

aspects of acculturation (e.g., psychological acculturation) and their role in parenting should be examined in future research.

Despite these limitations, the present study is the first observational study conducted among Korean immigrant mothers in the United States to examine actual rather than perceived parenting behaviors. These findings also advance our understanding of specific parenting behaviors and their relations with young Korean immigrant children's socioemotional and behavioral adjustment in the school setting. Moreover, the significant and unique roles of mothers' behavioral participation in the mainstream versus heritage culture and the developmental stage of the child were revealed.

### IMPLICATIONS FOR PRACTICE, APPLICATION, AND POLICY

Together, these findings have implications for designing culturally sensitive parenting interventions or training programs for Korean immigrant families. While appreciating the parenting goals, beliefs, and practices adopted from their heritage culture, practitioners can recommend parenting practices (e.g., encouragement) that are effective in American culture to support Korean immigrant mothers' parenting acculturation. For practitioners and policy makers, our findings speak to the significance of providing of services for Korean immigrant mothers' adaptation to the U.S. culture. Increasing government services for Korean immigrants that assist in their acculturation within U.S. society can promote mothers' self-efficacy and engagement in positive parenting (Costigan & Koryzma, 2011).

### ADDRESSES AND AFFILIATIONS

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### ARTICLE INFORMATION

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**Ethical Principles:** The authors affirm having followed professional ethical guidelines in preparing this work. These guidelines include obtaining informed consent from human participants, maintaining ethical treatment and respect for the rights of human or animal participants, and ensuring the privacy of participants and their data, such as ensuring that individual participants cannot be identified in reported results or from publicly available original or archival data.

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